

How to use your

MARINE RADIOTELEPHONE

**NEW: 8-Page Listing
U.S.C.G. Radio Guard List**



*An authoritative handbook
prepared by the*

**RADIO TECHNICAL COMMISSION
FOR MARINE SERVICES**

IN COOPERATION WITH THE
FEDERAL COMMUNICATIONS COMMISSION

PHONETIC SPELLING ALPHABET

The spelling alphabet is to be used to identify letters when spelling out words, names, abbreviations and call signs in voice communications.

Letter to be Identified	Identifying Word	* Spoken as:
A	Alfa	AL FAH
B	Bravo	BRAH VOH
C	Charlie	CHAR LEE (or SHAR Lee)
D	Delta	DELL TAH
E	Echo	ECK OH
F	Foxtrot	FOKS TROT
G	Golf	GOLF
H	Hotel	HOH TELL
I	India	IN DEE AH
J	Juliett	JEW LEE ETT
K	Kilo	KEY LOH
L	Lima	LEE MAH
M	Mike	MIKE
N	November	NO VEM BER
O	Oscar	OSS CAH
P	Papa	PAH PAH
Q	Quebec	KEH BECK
R	Romeo	ROW ME OH
S	Sierra	SEE AIR RAH
T	Tango	TANG GO
U	Uniform	YOU NEE FORM (or OO NEE FORM)
V	Victor	VIK TAH
W	Whiskey	WISS KEY
X	X-ray	ECKS RAY
Y	Yankee	YANG KEY
Z	Zulu	ZOO LOO

* The syllables to be emphasized are in **bold face** type.

Emergency Tear-out Sheet

DISTRESS COMMUNICATIONS FORM

Instructions: Complete this form now (except for items 6 through 9) and post near your radiotelephone.

Speak SLOWLY — CLEARLY — CALMLY

1. Make sure your radiotelephone is on.
 2. Select either *VHF Channel 16* (156.8 MHz) or 2182 kHz.
 3. Press microphone button and say: "MAYDAY — MAYDAY — MAYDAY."
 4. Say: "THIS IS _____,
your boat name

"_____
your call letters
 5. Say: "MAYDAY: _____."
your boat name
 6. TELL WHERE YOU ARE (What navigational aids or landmarks are near?).
 7. STATE THE NATURE OF YOUR DISTRESS.
 8. GIVE NUMBER OF ADULTS AND CHILDREN ABOARD, AND CONDITIONS OF ANY INJURED.
 9. ESTIMATE PRESENT SEAWORTHINESS OF YOUR BOAT.
 10. BRIEFLY DESCRIBE YOUR BOAT:

State Registration No. ; Length FEET;
Draft FEET; Type ; Color HULL; Color TRIM;
MASTS; POWER; Number Type; Horsepower Construction Material

Anything else you think will help rescuers to find you

11. Say: "I WILL BE LISTENING ON CHANNEL 16 / 2182."
(Cross out channel no. or frequency that does not apply)
 12. End Message by saying: "THIS IS _____ . OVER,"
your boat name and call sign
 13. Release microphone button and listen: Someone should answer.
IF THEY DO NOT, REPEAT CALL, BEGINNING AT ITEM 3.
If there is still no answer, switch to another channel and begin again.

VESSEL INFORMATION DATA SHEET

When requesting assistance from the Coast Guard, you may be asked to furnish the following details. This list should, therefore, be filled out as completely as possible and posted alongside your transmitter with the *Distress Communications Form*.

1. Description of Vessel Requiring Assistance.

Sail: _____, Power: Inboard _____, Outboard _____, I/O _____

Type of vessel: (Ketch, sloop, sedan or express cruiser, row boat, etc.)
_____. Manufacturer or class _____

Boat Length _____. Draft _____. Home Port _____

Hull Markings (color trim, etc.) _____

2. Survival Gear Aboard

Personal Flotation Devices	_____	3. Electronic Equipment
Flares	_____	Radiotelephone(s) VHF MF HF Channels/Frequencies available
Flashlight	_____	VHF Channel 22A
Raft	_____	MF—2670 kHz
Dinghy or Tender	_____	Radar
Anchor	_____	Depth Finder
Spotlight	_____	Loran
Auxiliary power	_____	Direction Finder
Horn	_____	EPIRB

4. Vessel Owner/Operator

Name _____ Telephone Number _____

Address _____

Is Owner/Operator an experienced sailor? Yes No

5. Miscellaneous

Be prepared to describe the local weather conditions, depth of water etc.

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for Marine Services**

HOW TO USE YOUR MARINE RADIOTELEPHONE

This handbook has been prepared by the Radio Technical Commission for Marine Services in cooperation with the Federal Communications Commission.

Copies may be purchased from RTCM, P.O. Box 19087, Washington, D.C. 20036.

The Radio Technical Commission for Marine Services (RTCM) is an organization in which government and non-government groups cooperate in studies of existing and proposed systems of maritime telecommunications. These studies serve to determine suitability of the various telecommunications systems. Furthermore, appropriate cooperation often helps to foster new developments needed to meet changing maritime operational requirements.

The RTCM is not an official agency of the United States Government. Its recommendations, therefore, may not be regarded as statements of official government policy unless so enunciated by the government agency or agencies having statutory jurisdiction of the matters to which the recommendations relate.

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Chapter 1. General

WHO THIS BOOK IS FOR

This manual is addressed to owners and operators of vessels voluntarily equipped for radiotelephone communications. For practical purposes, recreational boats are not required by Federal law to carry radiotelephone equipment. If you do decide to equip your boat, there are certain regulations of the Federal Communications Commission that you must observe. These regulations are reflected in the text of this manual, and are set forth in Volume IV, Part 83, of the FCC Rules and Regulations available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Boats carrying more than six passengers for hire, as well as many other commercial craft, are required to carry radio equipment. If you operate any type of commercial vessel, consult your nearest FCC office to determine the requirements which may apply to you and your boat.

COMMUNICATIONS

With the distress, safety and calling frequencies—Channel 16 (156.8 MHz) VHF-FM and 2182 kHz—as the keystones, the marine radiotelephone system is designed to

- Provide monitored distress and safety frequencies. By designating the distress frequencies as calling frequencies, the radio regulations ensure that a maximum number of stations will be listening at any given time. *The success of this arrangement depends on the cooperation* of all users to maintain a listening watch on 2182 kHz or Channel 16 (156.8 MHz) and to keep those frequencies clear of all unnecessary communication.
- Provide frequencies for communication between your vessel and local and Federal agencies.
- Provide frequencies for the exchange of information pertaining to navigation, movement or management of vessels.
- Provide special frequencies for stations and vessels engaged in commerce.
- Provide noncommercial frequencies for the special needs of recreational boating people.
- Provide separate frequencies for vessels to communicate with shore telephones.

In addition to suggesting the most effective ways to use your marine radiotelephone, this manual also contains lists of the various available frequencies you may wish to have installed in your radio, together with the authorized use of each frequency.

Chapter 2. How To Get Ship Station and Operator Licenses

[Station and operator license fees were suspended temporarily as of January 1, 1977.]

SHIP STATION LICENSES

All radio stations aboard vessels must be licensed by the Federal Communications Commission. This license cannot be transferred from vessel to vessel or person to person. Ship stations are licensed primarily for the safety of life and property; therefore, distress and safety communications must have absolute priority. The licensee is responsible at all times for the lawful and proper operation of his station.

Application for a ship station license including radionavigation (radar) and EPIRB (See Chapter 3, III, for special information concerning EPIRBS) is made on FCC Form 502. This form may be obtained from any FCC Field Office. A list of these offices is given in Appendix 1. The completed and signed application is then sent to the Federal Communications Commission, P.O. Box 1040, Gettysburg, PA 17325. Application processing time is approximately 6 to 8 weeks. The regular term of a ship station license is 5 years.

The Commission realizes that some individuals may want to start operating their radiotelephones immediately and not wait the 6 to 8 week processing time. To meet this need, the applicant may obtain an interim ship station license. This may be done by the applicant or his representative appearing in person at the nearest FCC Field Office, and filing a properly completed application (FCC Form 502) and requesting an interim ship station license. This license, valid for 6 months from the date of issuance, permits the applicant to operate his ship radiotelephone station while awaiting receipt of the regular term license. The regular term license will be mailed to the licensee prior to the expiration of the interim permit. An interim license does not apply to renewal applications.

RENEWAL OF SHIP STATION LICENSE

An application for renewal of a ship radiotelephone station license is made on FCC Form 405-B. This form is ordinarily mailed to the station

licensee 60 days before the expiration date of his license. If the form has not been received 30 days before expiration of current license, FCC Form 405-B may be obtained upon request from any FCC office. Application for renewal must be received by the Commission prior to the expiration date of the station license. Applicants who file for renewal before the license expiration date may continue operating after the license expiration date until the application for renewal is acted on by the Commission.

DISCONTINUING SHIP STATION OPERATION

If you permanently discontinue the operation of the ship radio station, as for example, if you sell your boat, you are required to promptly return the station license to the Secretary, Federal Communications Commission, Washington, D.C. 20554. In the event that the license is not available for this purpose, a letter or telegram must be sent to the Secretary stating the reason why the license is not available and requesting that the license be cancelled. Otherwise, any violations committed in the operation of the station may be your responsibility.

MODIFICATION OF SHIP STATION LICENSE

An application for modification of the station license must be filed when any transmitting equipment is added that does not operate in a frequency band or bands authorized in the ship station license. This application should be filed on FCC Form 502.

No application for modification is required for additions and/or replacement of FCC type accepted radiotelephone transmitters that operate in the same frequency band(s) as specified in the station license.

The licensee must promptly notify the Commission when the name or the mailing address of the licensee is changed, or in the event that the vessel name is changed. This notice, which may be in letter form, should be sent to the Federal Communications Commission, P.O. Box 1040, Gettysburg, PA 17325. A copy of the letter should be posted with the station license. No application or fee is required in these cases.

ADDITION OF VHF EQUIPMENT

New ship stations (and after January 1, 1977, all ship stations) employing frequencies in the 2 MHz band must be equipped to operate in the 156-162

MHz band. Licensees authorized by their existing licenses to operate in the 2 MHz band may install and operate VHF equipment under authority of their existing licenses.

SPECIAL TEMPORARY AUTHORITY

Where an authorization for the use and operation of transmitting equipment is needed in an emergency or for a limited period of time, the Commission may grant special temporary authority (STA) to operate a ship station. For further information, contact any FCC Field Office.

OPERATOR PERMIT OR LICENSE

The radiotelephone transmitter in a ship station may be operated only by a person holding an operator permit or license. The authorized operator may permit others to speak over the microphone if he starts, supervises, and ends the operation, makes the necessary log entries, and gives the necessary identification. The authorization usually held by radio operators aboard small vessels is the Restricted Radiotelephone Operator Permit. This permit is valid for operation of a ship station radiotelephone on voluntarily equipped vessels when the radio's output is not greater than 100 watts carrier power or 400 watts peak envelope power (PEP).

You may check your set's power rating by consulting the owner's manual or a qualified technician. The Restricted Radiotelephone Operator Permit is the minimum authorization required for the operation of a ship station. Neither the Restricted Radiotelephone Operator Permit nor the Third Class Radiotelephone Operator Permit allow the operator to make any transmitter adjustments that may affect the proper operation of the station. Any such adjustments must be made by only the holder of a First- or Second-Class Radiotelegraph or Radiotelephone License. The Restricted Radiotelephone Operator Permit or verification card of a higher class license must be posted or kept on the operator's person.

An application for a Restricted Radiotelephone Operator Permit is made on FCC Form 753. The completed form is sent to the Federal Communications Commission, P.O. Box 1050, Gettysburg, PA 17325. No oral or written examination is required. Applicants must be at least 14 years of age. Field Offices will accept applications if the applicant makes a satisfactory showing of immediate need for the permit and if the application (Form 753) is presented in person by the applicant. The Restricted Radiotelephone Operator Permit is issued for the lifetime of the licensee.

SPECIAL PROVISIONS FOR ALIENS

Except for foreign governments and representatives of foreign governments, aliens may be granted ship station licenses and Restricted Radiotelephone Operator Permits. The operator permit granted to an alien is valid only for operating the ship station licensed in his name. Special forms and provisions are applicable to aliens and, therefore, an alien should contact an FCC Field Office for information before applying for his license and permit.

Chapter 3. Radiotelephone Equipment

FCC TYPE ACCEPTANCE

All radiotelephone transmitters used in a ship station must be type accepted under Part 83 of the FCC Regulations. A list of all equipment acceptable for licensing in the marine service is included in the Commission's Radio Equipment List. Any FCC Field Office can advise you whether the radiotelephone you propose to use is type accepted under Part 83, if you furnish them with the manufacturer's name and the model or type number of the transmitter.

ADJUSTMENTS OF TRANSMITTING EQUIPMENT

The station licensee is responsible for the proper technical operation of his equipment. All transmitter measurements, adjustments, or repairs that may affect the proper operation of the transmitter must be made by or under the immediate supervision and responsibility of a person holding a valid First or Second Class Radiotelegraph or Radiotelephone Operator License. A special license endorsement is required to service a radar set.

I. VHF RADIOTELEPHONE EQUIPMENT

SELECTING A VHF RADIOTELEPHONE

Before purchasing a VHF-FM radiotelephone, you should carefully consider your requirements for a radiotelephone and select a unit that will meet these needs. You should remember that VHF communications are essentially "line of sight." The average ship-to-ship range is about 10 to 15 miles, while the normally expected ship-to-shore range is 20 to 30 miles. These figures vary depending upon transmitter power, antenna height, and terrain.

The FCC limits the transmitter power for VHF-FM to 25 watts for vessels and also requires the capability to reduce transmitter power to no more than

one watt for short range communication. No matter how powerful your transmitter is, if you can't hear the other station—you can't communicate. The receiver performance of your radiotelephone is therefore an important aspect of your communication capability.

Two of the most important receiver specifications are SENSITIVITY and ADJACENT CHANNEL REJECTION. These two factors are usually a good indication of how a particular receiver will perform.

In a VHF-FM receiver, the sensitivity is usually given as the number of microvolts required to produce 20 decibels (dB) of quieting. The LOWER or SMALLER the number of microvolts for the same amount of quieting, the better the sensitivity of the receiver; for example, 0.5 microvolt is better than 2.0 microvolts. (Note: Some manufacturers specify the sensitivity at other than 20 dB quieting, so you should be sure you are comparing receivers based on the same criteria.)

The adjacent channel rejection is one of several different specifications that indicate the receiver's ability to reject unwanted signals and accept only the desired signal. It is usually given as a negative number of dB. The LARGER the absolute number of dB, the better the adjacent channel rejection of the receiver. For example, a receiver with an adjacent channel rejection of (-) 70 dB would normally perform much better than one with an adjacent channel rejection of (-) 50 dB.

Although many manufacturers do not include these figures on their data sheets, they are a highly reliable indication of the performance of a receiver; and, the prospective buyer would be well advised to contact the manufacturer to obtain this information. It is also strongly recommended that the buyer seek the advice of a competent communications technician before making a final choice on a particular radiotelephone.

INSTALLATION OF A VHF RADIOTELEPHONE

The licensee of a ship station may install a pretested VHF marine radiotelephone transmitter in his ship station. No operator license is required to perform this kind of installation. This permission does NOT authorize the ship station licensee to add or substitute channels or to make any modifications to the transmitter, with the exception that where the FCC has type accepted a transmitter in which factory sealed pretested "plug-in" modules are used for the addition or substitution of channels in the transmitter, the licensee may add or substitute channels using these "plug-in" modules. Unless the individual is experienced in working with coaxial cable, he should have a technician attach the coaxial cable plug to the antenna cable.

REQUIRED FREQUENCIES AND EQUIPMENT CHANNELIZATION

All ship radiotelephone stations in the 156 to 162 MHz band MUST be equipped to operate on:

1. Ch. 16 (156.8 MHz) International Distress,
Safety and Calling
frequency for VHF.
2. Ch. 6 (156.3 MHz) Intership Safety Channel.
3. At least one working frequency.

The number of channels installed in your set will depend largely on how the set will be used, where the vessel will be operated, and what coast stations are operating in your area. While fewer than twelve channels may be satisfactory for some vessels, installation of a radiotelephone with less than twelve channel capability is not recommended.

The marine VHF band in the United States consists of 48 channels including three weather channels. The following tables include a listing of the frequencies available, an explanation of the use of the various channels and some suggestions on the selection of channels for recreational (non-commercial) vessels.

The more channels you have in your set, the better your communication capability will be. Caution must be exercised, however, in selecting and using channels in accordance with their authorized purposes as set out in Table II.

TABLE I

The following table can be used as an aid in selecting the proper channels to install in your VHF radio. The suggested number of channels to be selected from each group is given for recreational vessels equipped with radiotelephones having six and twelve channel capability and for twelve channel commercial ships. An explanation of the use of each channel is given in Table II.

TABLE I

Channel Numbers	Type of Communication	Suggested Channel Selection		
		Recreational Vessels	Commercial Vessels	
		6 ch.	12 ch.	12 chs.
16	DISTRESS, SAFETY & CALLING Intership & ship to coast	*	*	*
6	INTERSHIP SAFETY Intership. NOT to be used for non-safety intership communications	*	*	*
22A	Communications with U.S. Coast Guard ship, coast, or aircraft stations	1	1	1
65A, 66A, 12, 73, 14, 74, 20	PORT OPERATIONS Intership & ship to coast		1	2
13	NAVIGATIONAL Intership & ship to coast		1	1
68, 9, 69 71, 78A	NON-COMMERCIAL Intership & ship to coast	1	3	
70, 72	NON-COMMERCIAL Intership		2	
7A, 9, 10, 11, 18A, 19A, 79A, 80A	COMMERCIAL Intership & ship to coast			3
67, 8, 77 88A	COMMERCIAL Intership			1
24, 84, 25, 85, 26, 86, 27, 87, 28	PUBLIC CORRESPONDENCE Ship to public coast	2	2	2
162.400 (WX-2) NOAA WEATHER SERVICE 162.550 (WX-1) Ship receive only 162.475 (WX-3)		**	**	**

*These channels are REQUIRED to be installed in every ship station equipped with a VHF radio.

**The weather receive channels are half-channels (receive only) one or more of which are recommended to be installed in each ship station. Many manufacturers include one or more of these channels in their sets in addition to the normal six or twelve channel capacity. For additional information on the National Oceanic and Atmospheric Administration (NOAA) weather service see Appendix 3.

TABLE II

Channel Number	Frequencies (MHz)		CHANNEL USAGE Intended Use
	Ship Transmit	Ship Receive	
6	156.300	156.300	INTERSHIP SAFETY. Required for all VHF-FM equipped vessels. For intership safety purposes and search and rescue (SAR) communications with ships and aircraft of the U.S. Coast Guard. Must not be used for non-safety communications.
7A	156.350	156.350	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). A working channel for commercial vessels to fulfill a wide scope of business and operational needs.
8	156.400	156.400	COMMERCIAL (INTERSHIP). Same as channel 7A except limited to intership communications
9	156.450	156.450	COMMERCIAL AND NON-COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Some examples of use are communications with commercial marinas and public docks to obtain supplies or schedule repairs and contacting commercial vessels about matters of common concern.
10	156.500	156.500	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 7A.
11	156.550	156.550	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 7A. It should be noted, however, in certain Ports channels 11, 12 and 14 are to be used selectively for the Vessel Traffic Service now being developed by the United States Coast Guard.
12	156.600	156.600	PORT OPERATIONS (INTERSHIP AND SHIP-TO-COAST). Available to all vessels. This is a traffic advisory channel for use by agencies directing the movement of vessels in or near ports, locks, or waterways. Messages are restricted to the operational handling, movement and safety of ships and, in emergency, to the safety of persons. It should be noted, however, in certain ports 11, 12 and 14 are to be used selectively for the Vessel Traffic Service being developed by the United States Coast Guard.
13	156.650	156.650	NAVIGATIONAL—(SHIP'S) BRIDGE TO (SHIP'S) BRIDGE. This channel is available to all vessels and is required on large passenger and commercial vessels (including many tugs). Use is

limited to navigational communications such as in meeting and passing situations. Abbreviated operating procedures (call signs omitted) and 1 watt maximum power (except in certain special instances) are used on this channel for both calling and working. For recreational vessels, this channel should be used for listening to determine the intentions of large vessels. This is also the primary channel used at locks and bridges.

14	156.700	156.700	PORT OPERATIONS (INTERSHIP AND SHIP-TO-COAST). Same as channel 12.
15		156.750	ENVIRONMENTAL (RECEIVE ONLY). A receive only channel used to broadcast environmental information to ships such as weather, sea conditions, time signals for navigation, notices to mariners, etc. Most of this information is also broadcast on the weather (WX) channels.
16	156.800	156.800	DISTRESS, SAFETY AND CALLING (INTERSHIP AND SHIP-TO-COAST). Required channel for all VHF-FM equipped vessels. Must be monitored at all times station is in operation (except when actually communicating on another channel). This channel is monitored, also, by the Coast Guard, public coast stations and many limited coast stations. Calls to other vessels are normally initiated on this channel. Then, except in an emergency, you must switch to a working channel. For additional information see Chapters 4 and 5.
17	156.850	156.850	STATE CONTROL. Available to all vessels to communicate with ships and coast stations operated by state or local governments. Messages are restricted to regulation and control, or rendering assistance. Use of low power (1 watt) setting is required by international treaty.
18A	156.900	156.900	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 7A.
19A	156.950	156.950	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 7A.
20	157.000	161.600	PORT OPERATIONS (SHIP-TO-COAST). Available to all vessels. This is a traffic advisory channel for use by agencies directing the movement of vessels in or near ports, locks, or waterways. Messages are restricted to the operational handling, movement and safety of ships and, in emergency, to the safety of persons.
21A	157.050	157.050	U.S. GOVERNMENT ONLY.
22A	157.100	157.100	COAST GUARD LIAISON. This channel is used for communications with U.S. Coast Guard

ship, coast and aircraft stations after first establishing communications on channel 16. Navigational warnings and, where not available on WX channels, Marine Weather forecasts are made on this frequency. *It is strongly recommended that every VHF radiotelephone include this channel.*

23A	157.150	157.150	U.S. GOVERNMENT ONLY.
24	157.200	161.800	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Available to all vessels to communicate with public coast stations. Channels 26 and 28 are the primary public correspondence channels and therefore become the first choice for the cruising vessel having limited channel capacity. Also, consult the listing of public coast stations contained in Appendix 4 for the stations operating in your boating area.
25	157.250	161.850	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
26	157.300	161.900	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
27	157.350	161.950	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
28	157.400	162.000	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
65A	156.275	156.275	PORT OPERATIONS (INTERSHIP AND SHIP-TO-COAST). Same as channel 12.
66A	156.325	156.325	PORT OPERATIONS (INTERSHIP AND SHIP-TO-COAST). Same as channel 12.
67	156.375	156.375	COMMERCIAL (INTERSHIP). Same as channel 7A except limited to intership communications.
68	156.425	156.425	NON-COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). A working channel for non-commercial vessels. May be used for obtaining supplies, scheduling repairs, berthing and accommodations, etc. from yacht clubs or marinas, and intership operational communications such as piloting or arranging for rendezvous with other vessels. It should be noted that channel 68 (and channel 70 for intership only) is the most popular non-commercial channel and therefore is the first choice for vessels having limited channel capacity.
69	156.475	156.475	NON-COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 68.
70	156.525	156.525	NON-COMMERCIAL (INTERSHIP). Same as channel 68, except limited to intership communications.

71	156.575	156.575	NON-COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 68.
72	156.625	156.625	NON-COMMERCIAL (INTERSHIP). Same as channel 68, except limited to intership communications.
73	156.675	156.675	PORT OPERATIONS (INTERSHIP AND SHIP-TO-COAST). Same as channel 12.
74	156.725	156.725	PORT OPERATIONS (INTERSHIP AND SHIP-TO-COAST). Same as channel 12.
77	156.875	156.875	COMMERCIAL (INTERSHIP). Same as channel 7A except limited to intership communications.
78A	156.925	156.925	NON-COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 68.
79A	156.975	156.975	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 7A.
80A	157.025	157.025	COMMERCIAL (INTERSHIP AND SHIP-TO-COAST). Same as channel 7A.
81A	157.075	157.075	U.S. GOVERNMENT ONLY.
82A	157.125	157.125	U.S. GOVERNMENT ONLY.
83A	157.175	157.175	U.S. GOVERNMENT ONLY.
84	157.225	161.825	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
85	157.275	161.875	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
86	157.325	161.925	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
87	157.375	161.975	PUBLIC CORRESPONDENCE (SHIP-TO-COAST). Same as channel 24.
† 88A	157.425	157.425	COMMERCIAL (INTERSHIP). Same as channel 7A, except limited to intership communications and between commercial fishing vessels and associated aircraft while engaged in commercial fishing.
WX1	—	162.550	WEATHER (RECEIVE ONLY). To receive weather broadcasts of the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA).
WX2	—	162.400	WEATHER (RECEIVE ONLY). Same as WX1.
WX3	—	162.475	WEATHER (RECEIVE ONLY). Same as WX1.

NOTE. The addition of the letter "A" to the channel number indicates that the ship receive channel used in the United States is different from the one used by vessels and coast stations of other countries. Vessels equipped for U.S. operations only will experience difficulty communicating with foreign ships and coast stations on these channels.

II. MEDIUM AND HIGH FREQUENCY RADIOTELEPHONE EQUIPMENT

Previously, most marine radiotelephones operated in the 2-3 MHz medium frequency (MF) band. This equipment, which is now obsolete, employed double sideband (DSB), full carrier type of amplitude modulation (AM). These DSB radiotelephones have been superseded by single sideband (SSB) equipment. The FCC requires that all new installations in the medium frequency (MF) band employ the SSB mode. Further, all DSB transmitters must cease operation by January 1, 1977.

Single sideband provides a number of advantages over DSB equipment. Most importantly, the occupied bandwidth is narrower. Therefore, more stations can be accommodated in the marine bands. The SSB mode is more efficient than DSB. This permits longer range communications with less battery consumption than for DSB radiotelephones.

SELECTING A SINGLE SIDEBAND RADIOTELEPHONE

The 2-3 MHz medium frequency marine band is intended primarily for coastal operations beyond normal VHF communications range. The maximum reliable range in most areas is 50 to 150 miles in the daytime. Virtually all SSB radiotelephones provide coverage of one or more of the high frequency (HF) marine bands. These HF bands, extending up to 23 MHz, can provide communications for hundreds or even thousands of miles. The range depends on a number of factors, such as radiated power, atmospheric noise, and interference. The most important factors are the frequency band selected and the time of day or night when the radiotelephone is used.

Most SSB radiotelephones are capable of 50 to 150 watts of power output. The selection of an SSB radiotelephone will depend largely on the range required. Higher power units and those incorporating more bands and channels are generally more expensive. Your marine electronics dealer can assist you in recommending the equipment best suited to your communications needs.

INSTALLATION OF AN SSB RADIOTELEPHONE

For proper operation, the SSB installation requires considerable care. Unlike VHF, SSB radiotelephones require a good ground system and must be installed by an FCC licensed technician.

Before an SSB radio for use in the 2-3 MHz band can be installed, the

vessel must also be equipped with a VHF radiotelephone. Before initiating a call on the 2-3 MHz band, unless clearly beyond normal VHF range, the operator must first attempt to establish communications on the appropriate VHF channel. The reason, of course, is to confine short-range transmissions to the VHF band. To further relieve congestion, after January 1, 1977, the use of the 2-3 MHz band when in harbors, ports, or lakes and rivers is PROHIBITED for intership communications.

However, the 2-3 MHz band may still be used to contact a public correspondence station when beyond VHF range of that station or for distress communications.

SSB CHANNELIZATION

All ship radiotelephone stations in the 2-3 MHz band must be capable of operating on 2182 kHz, the international distress and calling frequency, and at least two other frequencies are required.

Many frequencies are available for both coastal (MF) and high seas (HF) ship-to-shore service. Instructions on the use of this service are given in Chapter 6, and a list of the 2-3 MHz stations is given in Appendix 5. Contact your local telephone company for more information on the high seas telephone service. There are also several intership frequencies available in all the MF and HF marine bands up to 23 MHz.

Several of the more popular carrier frequencies in the medium frequency band are given below, along with their authorized use:

Frequency	Use	Area
2003 kHz	Intership Safety	Great Lakes only
2082.5 kHz	Intership Safety	All areas
2142 kHz	Intership Safety	Pacific coast area south of lat. 42° N. (daytime only)
2203 kHz	Intership Safety	Gulf of Mexico only
2638 kHz	Intership Safety	All areas
2670 kHz	Intership and ship-to-coast (U.S.C.G. ship and coast stations only)	All areas
2738 kHz	Intership Safety	All areas except Great Lakes and Gulf of Mexico
2830 kHz	Intership Safety	Gulf of Mexico only

All of the frequencies listed above (except 2670 kHz) may also be used for operational and business communications, provided no interference is caused to safety communications. 2670 kHz is a Coast Guard (Government) frequency and may be used to receive Coast Guard weather and

marine information broadcasts. It may also be used to communicate with Coast Guard ship and coast stations after first establishing communications on 2182 kHz.

Vessels planning offshore passages where MF or VHF will not provide adequate communications should install one or more of the following pairs of frequencies in SSB equipment. These are continuously monitored by the United States Coast Guard as part of their Automated Mutual Assistance Vessel Rescue System (AMVER) and are also used for High Seas voice weather broadcasts. When necessary to call the Coast Guard on their AMVER frequencies, they may not answer immediately since their equipment is used on many frequencies.

YOUR TRANSMIT CARRIER	YOUR RECEIVE CARRIER
4094.8 kHz	4393.4 kHz
6207.2 kHz	6521.8 kHz
8226.8 kHz	8760.8 kHz
12365.0 kHz	13144.0 kHz (on call)
16495.0 kHz	17290.0 kHz (on call)

It is recommended that the non-commercial use of these frequencies be PRINCIPALLY that of listening, with actual transmissions used only in an emergency. The most up to date information on the location and path of tropical storms will be found on these broadcasts. A competent dealer in SSB equipment usually can recommend the choice of frequencies for your planned voyage.

III. OTHER RADIO TRANSMITTING EQUIPMENT THAT MAY BE USED ABOARD A BOAT

EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB)

The EPIRB is basically a small VHF transmitter that operates on 121.5 MHz and 243 MHz, and sends out a distinctive signal on these two frequencies. These frequencies are aeronautical emergency frequencies and are monitored by commercial, private (121.5 MHz), and military (243 MHz) aircraft. The EPIRB may be authorized for use by boats that expect to go beyond normal VHF coverage (usually beyond 20 miles offshore).

These are two different EPIRB's available. There is the Class A EPIRB which is capable of floating free of a sinking vessel and activating automati-

cally, and there is a Class B EPIRB which must be activated manually. Either one must be FCC licensed. The Class A EPIRB meets the more rigorous Coast Guard requirements for mandatory carriage aboard certain commercial ships.

In making application for FCC license, use FCC Form 502, whether the EPIRB is to be part of the complement of transmitting equipment aboard or even if an EPIRB only is to be authorized. If no transmitters other than the EPIRB are to be authorized, however, no fee is required.

27 MHz CITIZENS RADIO BAND (CB)

Operations in the Citizens Radio Service is intended primarily to provide an individual means of conducting personal or business communications over a typical range of 5 to 15 miles. You may operate CB equipment aboard your boat on any of the 23 channels that have been made available in the 27 MHz Class D service (40 channels with new transceivers available after January 1, 1977) on a shared basis to communicate with other CB stations.

FCC regulations limit the maximum power output from the transmitter to 4 watts carrier power for Double Side Band (DSB)Amplitude Modulation (AM) equipment, and 12 watts Peak Envelope Power (PEP) for single sideband (SSB) transmitters, with a maximum antenna height of 20 feet above the highest point of the vessel.

Channel 9 in the Citizens Band has been designated as an emergency channel for emergency communications involving the safety of life of individuals, protection of private property, or for rendering assistance to a motorist. Citizens Radio Service is NOT a substitute for the marine distress system, as the Coast Guard does not monitor any of the Citizens Band channels.

No operator permit or operator license is required; however, a CB station license is required prior to operation of a CB radio. The application should be filed with the FCC using Form 505. Mail the application to the Federal Communications Commission, P.O. Box 1010, Gettysburg, Pennsylvania 17326.

Chapter 4. Operating Procedures (Other than Distress, Urgency and Safety.)

MAINTAIN A WATCH

Whenever your radio is turned on, keep the receiver tuned to the appropriate distress and calling frequency, 156.8 MHz or 2182 kHz. This listening watch must be maintained at all times the station is in operation and you are not actually communicating. The Coast Guard maintains a silent period on 2182 kHz for three minutes immediately after the hour and for three minutes immediately after the half hour. During these silent periods only messages or transmissions concerning distress or urgency are made.

Since this watch is required for safety and to facilitate communications by providing a common calling channel, it is not permissible for one vessel in a fleet of vessels traveling together to maintain this watch while the other vessels guard another channel, such as a common intership channel. You may maintain a watch on a working channel, however, and may establish communications directly on that channel provided you simultaneously maintain your watch on the distress and calling channel.

Record the times you maintain this watch in your Radio Log. (See p. 23.)

CHOOSE THE CORRECT CHANNEL OR FREQUENCY

Each of the marine frequencies and channels is authorized for a specific type of communication. It is therefore required that you choose the correct channel for the type of communications you wish to engage in. For example, certain channels are set aside exclusively for intership use and may not be used for ship to coast communications. Channels are further classified according to the subject matter or content of the communications. For example, COMMERCIAL communications are limited to commercial operations and may be used only to discuss matters pertaining to the commercial enterprise the vessel is engaged in.

The authorized use of each of the VHF channels and the majority of the MF channels is given in Chapter 3. For recreational boats, most of the communications will be limited to what is known as NON-COMMERCIAL (OPERATIONAL in the MF band) communications and PUBLIC CORRESPONDENCE.

PUBLIC CORRESPONDENCE

By using the channels set aside for Public Correspondence and establishing communications through the facilities of the public coast stations, you are able to make and receive calls from any telephone on shore. You do not have to limit your messages to ship's business on these channels. For additional information, see Chapter 6. Except for distress calls, public coast stations will charge for this service.

NON-COMMERCIAL OR OPERATIONAL

These channels have been set aside to fulfill the wide scope of needs of the recreational (non-commercial) vessel. Frequencies are available for both intership and ship to shore (with limited coast stations) communications. Permissible communications on these channels are those concerning the movement of vessels, obtaining supplies and service and, in general, anything else that pertains to the needs and normal operation of the vessel. "CHIT-CHAT" is NOT permitted.

COAST GUARD

The government frequencies Channel 22A (157.1 MHz) and 2670 kHz are widely used by recreational boating operators for communicating with U.S. Coast Guard shore stations and ship stations, and with USCG Auxiliary vessels when these vessels are operating under orders. When using these channels, you must first establish communications on the appropriate calling frequency (Channel 16 or 2182 kHz).

MAKING THE CALL (General Operating Procedures)

Calling Intership

Turn your radiotelephone on and listen on the appropriate distress and calling frequency, Channel 16 or 2182 kHz, to make sure it is not being used. If it is clear, put your transmitter on the air. This is usually done by depressing the "push to talk" button on the microphone. (To hear a reply, you must release this button.)

Speak directly into the microphone in a normal tone of voice. Speak clearly and distinctly. Call the vessel with which you wish to communicate by using its name; then identify your vessel with its name and FCC assigned call sign. Do not add unnecessary words and phrases as "COME IN BOB"

or "DO YOU READ ME." Limit the use of phonetics to poor transmission conditions.

This preliminary call must not exceed 30 seconds. If contact is not made, wait at least 2 minutes before repeating the call. After this time interval, make the call in the same manner. This procedure may be repeated no more than three times. If contact is not made during this period, you must wait at least 15 minutes before making your next attempt.

Once contact is established on Channel 16 or 2182 kHz, you must switch to an appropriate frequency for further communication. You may only use Channel 16 and 2182 kHz for calling and in emergency situations.

Since switching to a "working" frequency is required to carry out the actual communications, it is often helpful to monitor the "working" frequency you wish to use, briefly, before initiating the call on Channel 16 or 2182 kHz. This will help prevent you from interrupting other users of the channel.

All communications should be kept as brief as possible and at the end of the communication each vessel is required to give its call sign, after which, both vessels switch back to the distress and calling channel in order to reestablish the watch.

Two examples of acceptable forms for establishing communication with another vessel follow:

EXAMPLE I

Vessel	Voice Transmission
BLUE DUCK (on Channel 16)	"MARY JANE—THIS IS—BLUE DUCK—WA 1234" (The name of the vessel being called may be said two or three times if conditions demand.)
MARY JANE (on Channel 16)	"BLUE DUCK—THIS IS—MARY JANE—WA 5678—REPLY 68" (or some other proper working channel.)
BLUE DUCK (on Channel 16)	"68" or "ROGER" (If unable to reply on the channel selected, an appropriate alternate should be selected.)
BLUE DUCK (on working channel)	"BLUE DUCK"
MARY JANE (on working channel)	"MARY JANE"
BLUE DUCK (on working channel)	(Continue with message and terminates communication within 3 minutes. At the end of the communication, each vessel gives its call sign.)

EXAMPLE 2—A short form most useful when both parties are familiar with it.

BLUE DUCK (on Channel 16)	"MARY JANE—BLUE DUCK—WA 1234— REPLY 68"
MARY JANE (on Channel 68)	"MARY JANE—WA 5678"
BLUE DUCK (on Channel 68)	"BLUE DUCK" (Continues message and terminates communications as indicated in EXAMPLE 1.)

Calling Ship to Coast (Other than U.S. Coast Guard)

The procedures for calling coast stations are similar to those used in making intership calls with the exception that you normally initiate the call on the assigned working frequency of the coast station.

ROUTINE RADIO CHECK

Radio checks may be initiated on Channel 16 (156.8 MHz) but should be completed by immediately shifting to a working channel.

Listen to make sure that the Distress and Calling frequency is not busy. If it is free, put your transmitter on the air and call a specific station or vessel and include the phrase "request a radio check" in your initial call. For example, "MARY JANE—THIS IS BLUE DUCK—WA 1234—REQUEST RADIO CHECK CHANNEL _____ (names working channel)—OVER." After the reply by Mary Jane, Blue Duck would then say "HOW DO YOU HEAR ME?—OVER." The proper response by Mary Jane, depending on the respective conditions, would be:

"I HEAR YOU LOUD AND CLEAR," or
"I HEAR YOU WEAK BUT CLEAR," or
"YOU ARE LOUD BUT DISTORTED," etc.

Do not respond to a request for a radio check with such phrases as:

"I hear you five by five," or
"I read you loud and clear."

Figures are NOT a clear response as to the character of the transmission, and the word "read" implies a radio check by a meter.

It is not permitted to call a Coast Guard Station on 2182 kHz for a radio check. This prohibition does not apply to tests conducted during investigations by FCC representatives or when qualified radio technicians are installing equipment or correcting deficiencies in the station radiotelephone equipment.

RADIOTELEPHONE STATION LOG

A radio log is required; each page must (1) be numbered; (2) bear the name of the vessel and call sign; and (3) be signed by the operator. Entries must show the time each watch begins and ends. All distress and alarm signals must be recorded as completely as possible. This requirement applies to all related communications transmitted or intercepted, and to all urgency and safety signals and communications transmitted. A record of all installations, services, or maintenance work performed that may affect the proper operation of the station must also be entered by the licensed operator doing the work, including his address and the class, serial number, and expiration date of his license.

The 24-hour system is used in a radio log for recording time; that is 8:45 a.m. is written as 0845 and 1:00 p.m. as 1300. Local time is normally used, but Eastern Standard Time (EST) or Greenwich Mean Time (GMT) must be used throughout the Great Lakes. Vessels on international voyages use GMT exclusively. Whichever time is used, the appropriate abbreviation for the time zone must be entered at the head of the time column.

Radio logs must be retained for at least a year, and for 3 years if they contain entries concerning distress, and for longer periods if they concern communications being investigated by the FCC or against which claims or complaints have been filed.

Station logs must be made available for inspection at the request of an FCC representative, who may remove them from the licensee's possession. On request, the licensee shall mail them to the FCC by either registered or certified mail, return receipt requested.

A sample "Ship Radio Station Log Sheet" and a "Ship Radio Station Maintenance Log Sheet" are included at the end of this chapter.

SECRECY OF COMMUNICATIONS

The Communications Act prohibits divulging interstate or foreign communications transmitted, received, or intercepted by wire or radio to anyone other than the addressee or his agent or attorney, or to persons necessarily involved in the handling of the communications, unless the sender authorizes the divulgence of the contents of the communication. Persons intercepting such communications or becoming acquainted with them are also prohibited from divulging the contents or using the contents for the benefit of themselves or others.

Obviously, this requirement of secrecy does not apply to radio communications relating to ships in distress, nor to radio communications transmitted by amateurs or broadcasts by others for use of the general public. It does

apply, however, to all other communications. These statutory secrecy provisions cover messages addressed to a specific ship station or coast station or to a person via such station.

OBSCENITY, INDECENCY, AND PROFANITY

When two or more ship stations are communicating with each other, they are talking over an extensive party line. Users should always bear this fact in mind and assume that many persons are listening. All users therefore have a compelling moral obligation to avoid offensive remarks. They also have a strict legal obligation inasmuch as it is a criminal offense for any person to transmit communications containing obscene, indecent, or profane words, language, or meaning. Whoever utters any obscene, indecent, or profane language by means of radio communication may be fined not more than \$10,000 or imprisoned not more than 2 years, or both.

PROCEDURE WORDS

One way of cutting down the length of radio transmissions without loss of meaning is by the use of Procedure Words. These are individual words and short phrases which express complex thoughts in abbreviated form. They are employed in transmitting situations which frequently recur—the most obvious example, perhaps, is the word "OUT," which (when spoken at the end of a message) signifies: "THIS IS THE END OF MY TRANSMISSION TO YOU AND NO ANSWER IS REQUIRED OR EXPECTED."

Procedure words can only be successful in shortening message sending when (1) their meaning is fully understood by sender and listener and (2) they are properly used. The phrase over and out, for instance, is improper, since the two terms are contradictory.

Following is a list of procedure words and their meanings. It will take time for the novice operator to become used to this form of verbal shorthand, but effort spent in learning these few phrases will be repaid in clearer, shorter messages.

PROCEDURE WORD	MEANING
AFFIRMATIVE	You are correct, or what you have transmitted is correct.
BREAK	I separate the text from other portions of the message; or one message from one immediately following.
FIGURES	Figures or numbers follow. (Used when numbers occur in the middle of a message: "Vessel length is figures two two three feet.")
I SPELL	I shall spell the next word phonetically. (Note: Often used where a proper name or unusual word is important to a message: "Boat name is <i>Martha</i> . I spell—Mike; Alfa; Romeo; Tango; Hotel; Alfa." See phonetic alphabet inside front cover.)
NEGATIVE	No.
OUT	This is the end of my transmission to you and no answer is required or expected.
OVER	This is the end of my transmission to you and a response is necessary. Go ahead and transmit. (Note: Observe the considerable difference between "Over," used during a message exchange, and "Out," employed at the end of an exchange. "Over" should be omitted when the context of a transmission makes it clear that it is unnecessary.)
ROGER	I have received your last transmission satisfactorily.
SILENCE (said three times)	Cease all transmissions immediately. Silence will be maintained until lifted. (Note: Used to clear routine business from a channel when an emergency is in progress. In this meaning <i>Silence</i> is correctly pronounced SEE LONSS.)
SILENCE FINI	Silence is lifted. (Note: Signifies the end of the emergency and the resumption of normal traffic. Correctly pronounced SEE LONSS FEE NEE.)
THIS IS	This transmission is from the station whose name or call sign immediately follows. (Note: Normally used at the beginning of a transmission: "BLUE DUCK—THIS IS—GIMLET—WZE 3488." Sometimes omitted in transmissions between experienced operators familiar with each other's boat names.)
WAIT	I must pause a few seconds; stand by for further transmission. (Note: This is normally used when a message must be interrupted by the sender. If, for instance, one station is asked for information not instantly available, its operator might send "WAIT" while looking up the required data. In addition, WAIT may also be used to suspend the transmission of an on-the-air test. If a station announces its intention of making such a test, another station using the channel may transmit the word "WAIT." The test shall then be suspended.)

SAMPLE

SHIP RADIO STATION LOG SHEET

(Recreational Vessels)

Page No. _____ Name of Vessel _____ Radio Call _____

¹ Log: Day, Month, Year

2 Use GMT or Local Time. Show which used. Use 24-hour system; that is, 8:45 a.m. is entered as 0845, and 2:15 p.m. as 1415.

³ Log time when radiotelephone is turned on and when turned off.

⁴ Log VHF Channel 16 (156.800 MHz) or 2182 kHz, as appropriate.

5 Record as completely as possible all distress communications transmitted or intercepted and all urgency and safety communications transmitted. Retain logs for at least one year; for 3 years if they include entries related to distress; longer if they concern communications being investigated by the FCC or against which claims or complaints have been filed.

SAMPLE

SHIP RADIO STATION MAINTENANCE LOG
(Recreational Vessels)

Page No. _____ Name of Vessel _____ Radio Call _____

DATE	SERVICE RECORD	TECHNICIAN'S LICENSE DATA
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____
		Class _____ Number _____ Expiration Date _____ Signature _____ Address _____

Include record of installations, repairs, adjustments and service performed by FCC licensed Radiotelegraph or Radiotelephone 1st or 2nd Class Radio Operator. Special endorsement is required for Radar installation and repair.

Chapter 5. Operating Procedures (Distress, Urgency and Safety)

GENERAL

If you are in distress, you may use any means at your disposal to attract attention and obtain assistance. You are by no means limited to the use of your marine radiotelephone. Often, visual signals, including flags, flares, lights, smoke, etc., or audible signals such as your boat's horn or siren, or a whistle or megaphone, will get the attention and help you need.

For boats equipped with a marine radiotelephone, help is just a radio signal away. Two marine radiotelephone channels have been set aside for use in emergencies. Channel 16 (156.8 MHz), the VHF-FM Distress, Safety and Calling frequency is the primary emergency channel in the VHF marine band. For those who have medium frequency (MF) radiotelephone also, 2182 kHz is the emergency frequency for use in that band. You are not limited to the use of these channels; you may use any other frequency channel available to you. The working frequency of the local marine operator (public telephone coast station) is a good example of a channel that is monitored.

There are other types of marine stations located ashore that are listening to Channel 16 and 2182 kHz along with the marine radio equipped vessels operating in the area. Because of this coverage, almost any kind of a call for assistance on Channel 16 (or 2182 kHz) will probably get a response. There are times, however, when the situation demands immediate attention; when you just can't tolerate delay. These are the times when you need to know how to use (or respond to) the Distress and Urgency signals and how to respond to the Safety signal.

SPOKEN EMERGENCY SIGNALS

There are three spoken emergency signals:

- 1. Distress Signal: MAYDAY**

The distress signal MAYDAY is used to indicate that a mobile station is threatened by grave and imminent danger and requests

immediate assistance. MAYDAY has priority over all other communications.

2. *Urgency Signal: PAN-PAN* (Properly pronounced PAHN-PAHN)
Used when the safety of the vessel or person is in jeopardy. "Man overboard" messages are sent with the Urgency signal. PAN-PAN has priority over all other communications with the exception of distress traffic.
3. *Safety Signal: SECURITY* (Pronounced SAY-CURITAY)
Used for messages concerning the safety of navigation or giving important meteorological warnings.

Any message headed by one of the emergency signals (MAYDAY, PAN-PAN, or SECURITY), must be given precedence over routine communications. This means listen. Don't transmit. Be prepared to help if you can. The decision of which of these emergency signals to use is the responsibility of the person in charge of the vessel.

RADIOTELEPHONE ALARM SIGNAL

This signal consists of two audio frequency tones transmitted alternately. This signal is similar in sound to a two-tone siren used by some ambulances. When generated by automatic means, it shall be sent as continuously as practicable over a period of not less than 30 seconds nor more than 1 minute. The purpose of the signal is to attract attention of the person on watch or to actuate automatic devices giving the alarm. The radiotelephone alarm signal shall be used only with the distress signal except in the situation discussed in the Section dealing with the Urgency Call and Message Procedures. (See p. 32.)

DISTRESS CALL AND MESSAGE

Sending Distress Call and Message

First send the Radiotelephone Alarm Signal, if available.

1. Distress signal MAYDAY (spoken three times)
2. The words THIS IS (spoken once)
3. Name of vessel in distress (spoken three times) and call sign (spoken once)

The Distress Message immediately follows the Distress Call and consists of:

4. Distress signal MAYDAY (spoken once)

5. Name of vessel (spoken once)
6. Position of vessel in distress by latitude and longitude or by bearing (true or magnetic, state which) and distance to a well-known landmark such as a navigational aid or small island, or in any terms which will assist a responding station in locating the vessel in distress. Include any information on vessel movement such as course, speed and destination.
7. Nature of distress (sinking, fire, etc.)
8. Kind of assistance desired
9. Any other information which might facilitate rescue, such as:
 - length or tonnage of vessel
 - number of persons on board and number needing medical attention
 - color of hull, decks, cabin, masts, etc.
10. The word OVER

Example: Distress Call and Message

(Send Radiotelephone Alarm Signal, if available, for at least 30 seconds but not more than 1 minute.)

"MAYDAY-MAYDAY-MAYDAY
THIS IS-BLUE DUCK-BLUE DUCK-BLUE DUCK-
WA 1234
MAYDAY-BLUE DUCK
DUNGENESS LIGHT BEARS 185 DEGREES MAGNETIC-
DISTANCE 2 MILES
STRUCK SUBMERGED OBJECT
NEED PUMPS-MEDICAL ASSISTANCE AND TOW
THREE ADULTS-TWO CHILDREN ABOARD
ONE PERSON COMPOUND FRACTURE OF ARM
ESTIMATE CAN REMAIN AFLOAT TWO HOURS
BLUE DUCK IS THIRTY-TWO FOOT CABIN CRUISER-
BLUE HULL-WHITE DECK HOUSE
OVER"

NOTE: Repeat at intervals until answer is received. If no answer is received on the Distress frequency, repeat using any other available channel on which attention might be attracted.

ACKNOWLEDGEMENT OF DISTRESS MESSAGE

If you hear a Distress Message from a vessel and it is not answered, then YOU must answer. If you are reasonably sure that the distressed vessel is

not in your vicinity, you should wait a short time for others to acknowledge. In any event, you must log all pertinent details of the Distress Call and Message.

Sending Acknowledgement of Receipt of Distress Message

Acknowledgement of receipt of a Distress Message usually includes the following:

1. Name of vessel *sending* the Distress Message
(spoken three times)
2. The words THIS IS (spoken once)
3. Name of your vessel (spoken three times)
and your call sign (spoken once)
4. The words RECEIVED MAYDAY (spoken once)
5. The word OVER (spoken once)

Example: Acknowledgement Message

"BLUE DUCK-BLUE DUCK-BLUE DUCK-WA 1234
THIS IS-WHITE WHALE-WHITE WHALE-
WHITE WHALE-WZ 4321
RECEIVED MAYDAY
OVER"

OFFER OF ASSISTANCE

After you acknowledge receipt of the distress message, allow a short interval of time for other stations to acknowledge receipt, if any are in a position to assist. When you are sure of not interfering with other distress-related communications, contact the vessel in distress and advise them what assistance you can render. Make every effort to notify the Coast Guard. The offer-of-assistance message shall be sent only with the permission of the person in charge of your vessel.

Sending Offer-of-Assistance Message

The Offer-of-Assistance Message usually includes the following:

1. Name of the distressed vessel (spoken once)
2. The words THIS IS (spoken once)
3. Name of the calling vessel (spoken once)
4. The word OVER (spoken once)
5. (On hearing an acknowledgement, ending with the word OVER from the distressed vessel, continue with your offer of assistance message.)

6. Name of calling vessel and radio call sign (spoken once)
7. The word OVER (spoken once)

Example: Offer of Assistance

To be sent after a short interval of time, but long enough to be sure that further transmissions will not cause harmful interference and long enough to work out relative position and time to reach the distressed vessel:

“BLUE DUCK-THIS IS-WHITE WHALE-OVER
(on hearing the word OVER from BLUE DUCK, continue)
I AM PROCEEDING TOWARD YOU FROM TEN MILES
WESTWARD EXPECT TO ARRIVE IN ONE HOUR
COAST GUARD HAS BEEN NOTIFIED INCLUDING
YOUR NEED FOR DOCTOR
I HAVE ONE INCH PORTABLE PUMP
PLEASE ADVISE IF MY ASSISTANCE IS NOT NEEDED
WHITE WHALE-WZ 4321-OVER”

URGENCY CALL AND MESSAGE PROCEDURES

The Urgency Call begins with the emergency signal, consisting of three repetitions of the group of words PAN-PAN (pronounced PAHN-PAHN). The Urgency Call and Message is transmitted on Channel 16 (or 2182 kHz) in the same way as the Distress Call and Distress Message. The Urgency signal PAN-PAN indicates that the calling person has a message concerning the safety of the vessel, or a person in jeopardy. The Urgency signal is authorized for situations like the following:

- Transmission of an urgent storm warning by an authorized shore station.
- Loss of person overboard but only when the assistance of other vessels is required.
- No steering or power in shipping lane.

Sending Urgency Call and Message

The Urgency Call and Message usually includes the following:

1. The Urgency signal PAN-PAN PAN-PAN PAN-PAN
2. Addressee—ALL STATIONS (or a particular station)
3. The words THIS IS
4. Name of calling vessel (spoken three times) and call sign (spoken once)
5. The Urgency Message (state the urgent problem)

RADIO GUARD LIST
UNITED STATES COAST GUARD

Prepared June 1977

Radio stations are listed from the northern coast of Maine southward to the Florida Keys; thence, northward along the Florida West Coast and westward along the coast of the Gulf of Mexico. West Coast station listings begin at the south coast of California, progressing northward to and including the radio stations located on the Alaskan coast. Stations serving the state of Hawaii and the area of Puerto Rico follow, with stations serving the United States portion of the Great Lakes and the Western Rivers completing the list.

Location	Lat. N	Long. W	Station Identification	VHF Ch 16	kHz 2182
State of MAINE					
Quoddy Head	44 49	66 58	Jonesport Station	X	X
Jonesport	44 32	67 37	Jonesport Station	X	X
Mt. Cadillac	44 20	68 15	Group Southwest Harbor	X	
Bass Harbor	44 13	69 20	Group Southwest Harbor		X
Owls Head	44 06	69 03	Rockland Station	X	X
Rockland	44 06	69 06	Rockland Station	X	X
Brunswick	43 57	69 58	Group Portland	X	
Mt. Independence	43 45	70 21	Group Portland	X	
Cape Elizabeth	43 34	70 42	Group Portland		X
Mt. Agamenticus (York)	43 13	70 42	Group Portland	X	
State of VERMONT					
Mt. Mansfield	44 40	73 05	Burlington Light Station	X	
State of MASSACHUSETTS					
Newburyport	42 48	70 48	Merrimac River Station	X	X
Gloucester	42 35	70 41	Gloucester Station	X	X
Eastern Point	42 34	70 39	Gloucester Station	X	X
Boston	42 21	71 03	Group Boston	X	
Pt. Allerton	42 18	70 35	Pt. Allerton Station	X	X
Scituate	42 12	70 43	Scituate Station	X	X
Race Point	42 04	70 43	Race Point Station	X	X
Pilgrim Monument (Provincetown)	42 03	70 11	Race Point Station	X	
Cape Cod Canal	41 46	70 30	Cape Cod Canal Station	X	X
Chatham	41 40	69 57	Chatham Station	X	X
Nobska Point	41 31	70 39	Group Woods Hole	X	X
Menemsha	41 21	70 46	Menemsha Station	X	X
Nantucket	41 16	70 10	Brant Point Station	X	
Brant Point	41 17	70 05	Brant Point Station	X	X
State of RHODE ISLAND					
Jamestown Bridge	41 30	71 20	Castle Hill Station	X	
Castle Hill	41 28	71 21	Castle Hill Station	X	X
Point Judith	41 22	71 29	Point Judith Station	X	X
Block Island	41 12	71 35	Block Island Station	X	X

Location	Lat. N	Long. W	Station Identification	VHF Ch 16	kHz 2182
State of CONNECTICUT					
Connecticut River	41 28	72 28	Group Long Island Sound	X	
Waterford (Millstone Pt.)	41 19	72 10	Group Long Island Sound	X	
New Haven	41 16	72 54	Group Long Island Sound		X
Fishers Island	41 15	72 04	Group Long Island Sound		X
Milford	41 13	72 01	Group Long Island Sound	X	
State of NEW YORK					
Eatons Neck	40 57	73 23	Group Long Island Sound	X	X
Montauk	41 04	71 51	Group Shinnecock	X	X
Shinnecock	40 51	72 30	Group Shinnecock	X	X
Moriches	40 47	72 45	Group Shinnecock	X	
Fire Island	40 38	73 13	Group Rockaway	X	
New York City	40 42	74 01	Group New York	X	
Mt. Beacon (Hudson R.)	41 25	73 55	Group New York	X	
Saugerties (Hudson R.)	42 08	74 02	Saugerties Sta. or Group New York		X
State of NEW JERSEY					
Sandy Hook	40 28	74 02	Group Sandy Hook	X	X
Manasquan	40 06	74 02	Group Sandy Hook	X	
Barnegat	39 45	74 06	Group Atlantic City	X	
Atlantic City	39 21	74 24	Group Atlantic City	X	X
Cape May	38 57	74 58	Group Cape May	X	X
Fortescue	39 15	75 10	Group Cape May	X	
Dela. Memorial Bridge	39 42	75 30	Base Gloucester	X	
Burlington Bristol Br.	40 05	74 45	Base Gloucester	X	
State of DELAWARE					
Dela. Memorial Bridge			(See "New Jersey")		
Rehoboth Beach	38 38	75 04	Group Cape May	X	X
State of MARYLAND					
North East	39 35	75 55	Group Baltimore	X	
Catonsville	39 15	76 45	Group Baltimore	X	
Annapolis	39 01	76 29	Group Baltimore	X	X
Crisfield	37 59	75 50	Group Chincoteague	X	X
Ocean City	38 20	75 05	Group Chincoteague	X	X
State of VIRGINIA					
Alexandria	38 46	77 12	Group Baltimore	X	
Oak Grove	38 08	76 36	Group Baltimore	X	
Chincoteague	37 56	75 23	Group Chincoteague	X	X
Parramore Beach	37 43	75 37	Group Chincoteague	X	X
Cobbs Creek	37 31	76 32	Group Hampton Roads	X	
Newport News	37 13	76 24	Group Hampton Roads	X	
Portsmouth	36 51	76 21	Group Hampton Roads	X	
Cape Henry	36 56	76 00	Group Hampton Roads	X	X
Pungo	36 45	76 01	Group Hampton Roads	X	

Location	Lat. N	Long. W	Station Identification	VHF Ch 16	kHz 2182
State of NORTH CAROLINA					
Elizabeth City	36 21	76 13	Eliz. City Air Station	X	
Edenton-Midway	36 06	76 46	Eliz. City Air Station	X	
Oregon Inlet	35 48	75 32	Group Cape Hatteras	X	X
Englehard	35 28	76 02	Group Cape Hatteras	X	X
Cape Hatteras (Buxton)	35 15	75 32	Group Cape Hatteras	X	X
Hatteras Inlet	35 13	75 14	Group Cape Hatteras		X
Hobucken	35 15	76 36	Group Fort Macon	X	X
Cedar Island (Lola)	34 57	76 17	Group Fort Macon	X	
Croatan National Forest	34 48	76 57	Group Fort Macon	X	
Holly Ridge	34 31	77 32	Group Fort Macon	X	
Carolina Beach	34 03	77 55	Group Fort Macon	X	X
State of SOUTH CAROLINA					
Myrtle Beach	33 42	78 52	Group Charleston	X	
Mt. Pleasant	32 47	79 40	Group Charleston	X	
Sullivans Island	32 45	79 50	Group Charleston		X
Parris Island	32 19	80 42	Group Charleston	X	
State of GEORGIA					
Tybee Island	32 01	80 51	Group Charleston		X
St. Simons Island	31 09	81 22	Group Mayport		X
Jekyll Island	31 01	81 26	Group Mayport	X	
State of FLORIDA					
Mayport	30 25	81 26	Group Mayport		X
Jacksonville Beach	30 20	81 25	Group Mayport	X	
Jacksonville Beach	30 18	81 24	Group Mayport		X
Flagler Beach	29 28	81 09	Group Mayport	X	
Cape Kennedy	28 30	80 35	Group Mayport	X	
Cape Kennedy	28 30	80 36	Group Mayport		X
Fort Pierce	27 32	80 22	Fort Pierce Station	X	
Fort Pierce	27 28	80 18	Fort Pierce Station		X
Jupiter	26 56	80 07	Group Miami	X	
Lake Worth	26 33	80 03	Group Miami		X
Delray Beach	26 25	80 05	Group Miami	X	
Fort Lauderdale	26 25	80 07	Group Miami		X
Miami Beach	25 47	80 08	Group Miami		X
Princeton	25 32	80 28	Group Miami	X	
Card Sound	25 24	80 27	Group Miami		X
Islamorada	24 57	80 34	Group Key West	X	
Islamorada	24 56	80 32	Group Key West		X
Marathon	24 42	81 05	Group Key West	X	X
Key West	24 33	81 48	Group Key West	X	X
Naples	26 03	81 42	Group St. Petersburg	X	
Fort Myers	26 26	81 55	Group St. Petersburg		X
Venice	27 06	82 22	Group St. Petersburg	X	
Mullet Key	27 38	82 44	Group St. Petersburg		X
Seminole	27 50	82 45	Group St. Petersburg	X	

Location	Lat. N	Long. W	Station Identification	VHF Ch 16	kHz 2182
Clearwater	27 58	82 49	Group St. Petersburg		X
Tarpon Springs	28 11	82 45	Group St. Petersburg	X	
Crystal River	28 57	82 42	Group St. Petersburg	X	
Yankeetown	29 01	82 43	Group St. Petersburg		X
Steinhatchee	29 40	83 22	Group St. Petersburg	X	
St. Marks	30 10	84 12	Group Mobile	X	
Cape San Blas	29 41	85 21	Group Mobile	X	
Panama City	30 11	85 47	Group Mobile	X	X
Fort Walton	30 23	86 48	Group Mobile	X	
State of ALABAMA					
Spanish Fort	30 40	87 54	Group Mobile	X	X
State of MISSISSIPPI					
Gulfport	30 23	89 06	Group Mobile	X	
(See Western Rivers Section, Mississippi River)					
State of LOUISIANA					
Venice	29 15	89 21	Group New Orleans	X	
Chalmette	29 57	89 57	Group New Orleans	X	
Leeville	29 13	90 13	Group Grand Isle	X	
Southbend	29 36	91 32	Group Grand Isle	X	
Pecan Island	29 41	92 30	Sabine Station	X	
Cameron	29 48	93 18	Sabine Station	X	
State of TEXAS					
Sabine	29 43	93 52	Sabine Station	X	X
Morgan Point	29 41	94 59	Group Galveston	X	X
Houston	29 44	95 16	Houston Station	X	X
Galveston	29 20	94 47	Group Galveston	X	
Freeport	28 59	95 19	Group Galveston	X	X
Port O'Connor	28 26	96 26	Group Port Aransas	X	X
Robstown	27 39	97 34	Group Port Aransas	X	
Port Mansfield	26 33	97 26	Group Port Isabel	X	
Port Isabel	26 04	97 09	Group Port Isabel	X	
State of CALIFORNIA					
Point Loma	32 42	117 14	Group San Diego	X	
San Clemente Island	32 52	118 27	Group San Diego		X
San Clemente Island	32 53	118 27	Long Beach Radio Station	X	
San Pedro Hill	33 45	118 20	Long Beach Radio Station	X	
Point Vicente	33 45	118 27	Long Beach Radio Station		X
Laguna Peak	34 07	119 04	Channel Island Harbor Sta.	X	
Oxnard	34 09	119 13	Channel Island Harbor Sta.		X
Pt. Conception	34 26	120 28	Channel Island Harbor Sta.		X
Tranquillon Mt.	34 35	120 33	Channel Island Harbor Sta.	X	
Cambria	35 31	121 04	Group Monterey	X	X
Point Sur	36 18	121 54	Group Monterey	X	X
Point Pinos	36 38	121 56	Group Monterey	X	

VHF kHz
Ch 16 2182

Location	Lat. N	Long. W	Station Identification	VHF	kHz
Mt. Umunhum	37 11	121 54	Group Monterey	X	
Mt. Diablo	37 52	121 55	Group San Francisco	X	
Bethel Island	38 01	121 37	Group San Francisco		X
Hamilton AFB	38 03	122 31	Group San Francisco		X
Point Reyes	38 06	122 56	San Francisco Comm. Sta.		X
Rio Vista (Sacramento R.)	38 09	121 41	Rio Vista Station	X	X
Jenner (Seaview)	38 31	123 11	Group San Francisco	X	
Point Arena	38 57	123 44	Group Humboldt Bay		X
Cahto Peak	39 42	123 34	Group Humboldt Bay	X	
Samoa	40 46	124 13	Group Humboldt Bay		X
Trinidad Head	41 03	124 09	Group Humboldt Bay	X	
Point St. George	41 52	124 20	Group Humboldt Bay		X
Lake Tahoe‡	39 13	120 00	Lake Tahoe Station	X	

State of OREGON

Cape Sebastian	42 20	124 25	Group Coos Bay	X	
Port Orford	42 44	124 31	Group Coos Bay	X	X
Seven Devils	43 18	124 23	Group Coos Bay	X	
Heceta Head	44 17	124 06	Group Coos Bay	X	
Yaquina Head	44 37	124 03	Group Coos Bay	X	
Cape Meares	45 29	123 58	Group Astoria	X	
Portland (Sky Line)	45 32	122 39	Group Portland	X	
Rainier	46 02	122 25	Group Portland	X	

State of WASHINGTON

Jump Off Joe Mt.	46 06	119 08	Kenniwick Station	X	
Cape Disappointment	46 18	124 04	Group Astoria	X	
Grays Harbor	46 53	124 07	Group Astoria	X	X
Kalaloch	47 38	124 22	Group Port Angeles	X	
Bahokus Peak	48 22	124 41	Group Port Angeles	X	X
Port Angeles	48 09	123 26	Group Port Angeles		X
Gold Mountain	47 33	122 48	Group Seattle	X	
King-TV Tower	47 38	122 21	Group Seattle	X	
Mt. Constitution	48 41	122 50	Group Seattle	X	

‡Seasonal.

State of ALASKA

Ketchikan	55 27	131 50	Ketchikan Radio Station	X	X
Five Finger	57 16	133 37	Five Finger Station		X
Lena Point	58 23	134 46	Juneau RCC		X
Juneau	58 18	134 25	Juneau RCC	X	X
Biorka Island	56 51	135 32	Biorka Is. Station		X
Cape Spencer	58 11	136 38	Juneau RCC		X
Ocean Cape	59 31	139 46	Ocean Cape Station		X
Middleton Island	59 27	146 18	Kodiak Communication Sta.		X
Site Summit	61 15	149 31	Kodiak Air Sta.	X	
Kodiak	57 45	152 30	Kodiak Communication Sta.		X
Pillar Mountain	57 49	152 23	Kodiak Air Station	X	

Location	Lat. N	Long. W	Station Identification	VHF Ch 16	kHz 2182
Sitkinak	56 32	154 08	Sitkinak Station		X
Cape Sarichef	54 35	164 55	Cape Sarichef Sta.		X
Port Clarence	65 15	166 53	Port Clarence Sta.		X
Saint Paul Island	57 10	170 23	St. Paul Island Sta.		X
Adak	52 00	176 37	Adak Island Station		X
Attu	52 50	173 11E	Attu Island Station		X

State of HAWAII and PACIFIC

Upolu Point, Hawaii, Hi.	20 15	155 53	Upolu Point Station		X
Mt. Haleakala, Maui, Hi.	20 42	156 15	Honolulu Radio Station	X	
Mt. Kaala, Oahu, Hi.	21 31	158 09	Honolulu Radio Station	X	
Kauai, Hi.	21 52	159 26	Kauai Station		X
French Frigate (Tern Isl.)	23 51	166 17	French Frigate Sta.		X
Finigayan, Guam	13 26	144 37E	Guam Radio Station		X
Orote Point, Guam	13 26	144 37E	Guam Radio Station	X	

Area of PUERTO RICO

San Juan	18 28	66 07	Base San Juan		X
El Yunque	18 18	65 47	Base San Juan		X
Cerro De Punta	18 10	66 35	Base San Juan		X
Monte del Estado	18 09	67 00	Base San Juan		X
Crown Mountain, St. Thomas, V.I.	18 21	64 58	Base San Juan		X
Signal Hill, St. Thomas, V.I.	18 21	64 56	Base San Juan		X

GREAT LAKES SECTION

LAKE ONTARIO

Alexandria Bay, N.Y.	44 19	75 59	Alexandria Bay Station		X
Oswego, N.Y.	43 27	76 31	Group Buffalo		X
Rochester, N.Y.	43 16	77 38	Group Buffalo		X
30 Mile Point, N.Y.	43 23	78 29	Group Buffalo		X

LAKE ERIE

Forestville, N.Y.	42 28	79 14	Group Buffalo		X
Ashtabula, Ohio	41 54	80 47	Group Buffalo		X
Cleveland, Ohio	41 30	81 41	Cleveland Harbor Station		X
Toledo, Ohio	41 40	83 22	Marblehead Station		X
Detroit, Mich.	42 21	82 59	Group Detroit		X

LAKE HURON

Port Huron	43 00	82 25	Group Detroit		X
Port Austin AFS	44 01	83 00	Saginaw River Station		X
Alpena	44 51	83 25	Group Detroit		X
Goetzville	46 03	84 05	Group Sault Ste. Marie		X
Sault Ste. Marie	46 26	84 23	Group Sault Ste. Marie		X

Location	Lat. N	Long. W	Station Identification	
LAKE SUPERIOR				
Grand Marais, Mich.	46 35	86 59	Group Sault Ste. Marie	X
Munising, Mich.	46 25	86 39	Group Sault Ste. Marie	X
Calumet AFB, Mich.	47 22	88 10	Group Duluth	X
Hancock, Mich.	47 11	88 35	Group Duluth	X
Bayfield, Wisc.	46 49	95 50	Group Duluth	X
Duluth, Minn.	46 46	92 05	Group Duluth	X

LAKE MICHIGAN				
Beaver Island, Mich.	45 34	85 34	Group Sault Ste. Marie	X
Sturgeon Bay, Wisc.	44 54	87 22	Group Milwaukee	X
Two Rivers, Wisc.	44 08	87 33	Group Milwaukee	X
Milwaukee, Wisc.	43 06	87 53	Group Milwaukee	X
Chicago, Ill.	41 53	87 37	Group Milwaukee	X
West Olive, Mich.	42 54	86 12	Group Muskegon	X
Ludington, Mich.	44 01	86 30	Group Muskegon	X
Frankfort, Mich.	44 38	86 14	Group Muskegon	X

WESTERN RIVERS SECTION

MISSISSIPPI RIVER NORTHWARD FROM NEW ORLEANS

Chalmette, La.	29 57	89 57	Group New Orleans	X
Plaquemine Pt., La.	30 18	91 12	Group New Orleans	X
Natchez, Miss.	31 29	91 21	Group Lower Miss.	X
Vicksburg, Miss.	32 23	90 52	Group Lower Miss.	X
Greenville, Miss.	33 23	91 04	Group Lower Miss.	X
Mt. Nebo, Ark. (State Park)	35 13	93 15	Group Lower Miss.	X
Poteau, Okla.	35 04	94 40	Group Lower Miss.	X
Memphis, Tenn.	35 08	90 03	Group Lower Miss.	X
Hornbeck, Tenn.	36 19	89 17	Group Lower Miss.	X
Bald Knob Mt., Ill.	37 33	89 20	St. Louis Coast Guard	X
Pere Marquette, Ill.	38 59	90 30	St. Louis Coast Guard	X
Koekuk, Iowa	40 36	91 16	St. Louis Coast Guard	X
Orion, Ill.	41 18	90 22	St. Louis Coast Guard	X
Dubuque, Iowa	42 24	90 34	St. Louis Coast Guard	X
West LaCrosse, Wisc.	43 05	91 19	St. Louis Coast Guard	X
Hastings, Minn.	44 43	92 50	St. Louis Coast Guard	X

ILLINOIS RIVER

Peoria, Ill.	40 39	89 31	St. Louis Coast Guard	X
Chicago, Ill.	41 53	87 37	Group Milwaukee	X

MISSOURI RIVER

Marshall, Mo.	39 07	93 15	Group Missouri River	X
Leavenworth, Kansas	39 16	94 53	Group Missouri River	X
Omaha, Nebr.	41 19	95 58	Group Missouri River	X

VHF kHz
Ch 16 2182

Location	Lat. N	Long. W	Station Identification	
OHIO RIVER				
Henderson, Ky.	37 51	87 34	Group Ohio River	X
Louisville, Ky.	38 14	85 45	Group Ohio River	X
Charlestown, Ind.	38 16	85 45	Group Ohio River	X
Madison, Ind.	38 44	85 24	Group Ohio River	X
Cincinnati, Ohio	39 06	84 33	Group Ohio River	X
Portsmouth, Ohio	38 43	83 04	Group Ohio River	X
Parkersburg, W.Va.	39 20	81 33	Group Ohio River	X
Wheeling, W.Va.	40 05	80 42	Group Ohio River	X
Pittsburgh, Pa.	40 27	79 57	Group Ohio River	X
TENNESSEE RIVER				
Signal Mt., Tenn.	35 08	85 19	Group Tenn. River	X
Athens, Ala.	34 49	86 56	Group Tenn. River	X
Land Between the Lakes	36 36	87 58	Group Tenn. River	X

6. Position of vessel and any other information that will assist responding vessels. Include description of your vessel, etc.
7. The words THIS IS
8. Name of calling vessel and radio call sign (spoken once)
9. The word OVER

Example: Urgency Call and Message

(Not involving possible use of radiotelephone alarm)

"PAN-PAN PAN-PAN PAN-PAN-ALL-STATIONS (or a particular station) THIS IS-BLUE DUCK-BLUE DUCK-BLUE DUCK-WA 1234 THREE MILES EAST OF BARNEGAT LIGHT
HAVE LOST MY RUDDER
AM DRIFTING TOWARD SHORE AND REQUIRE TOW
SEVEN PERSONS ON BOARD
BLUE DUCK IS THIRTY-TWO FOOT CABIN CRUISER-
BLUE HULL WHITE DECK HOUSE
THIS IS-BLUE DUCK-WA 1234
OVER

SAFETY CALL AND MESSAGE PROCEDURES

The Safety Call, headed with the word SECURITY (Say-curitay, spoken three times), is transmitted on the Distress and Calling frequency (Channel 16 or 2182 kHz), together with a request to shift to a working frequency where the Safety Message will be given. The Safety Message may be given on any available working frequency.

United States Coast Guard stations routinely use the Safety Call SECURITY to alert boating operators that they are preparing to broadcast a message concerning safety of navigation. The call also precedes an important meteorological warning. The Safety Message itself usually is broadcast on Coast Guard Channel 22A (157.1 MHz) and 2670 kHz. Although recreational boating operators may use the Safety Signal and Message, in many cases they would get better results and perhaps suffer less criticism by giving the information to the Coast Guard without making a formal Safety Call. The Coast Guard usually has better broadcast coverage from its shore stations and will rebroadcast the information if it is appropriate.

Sending the Safety Call and Message

The Safety Call usually includes the following:

(On Channel 16 or 2182 kHz.)

1. The Safety Signal SECURITY (spoken three times)

2. Addressee-ALL STATIONS (or a particular station)
3. The words THIS IS (spoken once)
4. Name of vessel calling and radio call sign
5. Announcement of the working channel (frequency) where the Safety Message will be given
6. Radio Call Sign
7. The word OUT

The Safety Message usually includes the following:

(Select working channel (frequency) announced in step 5 above)

1. The Safety Signal SECURITY (spoken three times)
2. The words ALL STATIONS (spoken once)
3. The words THIS IS (spoken once)
4. Give the Safety Message
5. Repeat the Radio Call Sign
6. The word OUT

Examples: Safety Call and Message

On Channel 16

“SECURITY-SECURITY-SECURITY-ALL STATIONS

THIS IS-BLUE DUCK-WA 1234

LISTEN CHANNEL 68

WA 1234-OUT”

On Channel 68

“SECURITY-SECURITY-SECURITY-ALL STATIONS

THIS IS-BLUE DUCK-WA 1234

A LOG APPROXIMATELY TWENTY FEET LONG TWO FEET

IN DIAMETER ADRIFT OFF HAINS POINT

POTOMAC RIVER

WA 1234 -OUT”

Chapter 6. Public Coast Stations

GENERAL

By utilizing the services of Public Coast Stations, ships may make and receive telephone calls to and from any telephone with access to the nationwide telephone network, including telephones overseas and on other ships and aircraft. In effect, these coast stations extend the talking range of ship telephones almost without limit.

DESCRIPTION OF PUBLIC COAST STATIONS

Three categories of Public Coast Stations operate in different frequency bands to provide for telephone service over a wide range of situations. The following brief descriptions of these services are of interest in selecting a service appropriate for your requirements. This information is followed by some suggestions for operating ship stations on public correspondence channels.

VHF-FM SERVICE (PUBLIC CLASS III-B COAST STATIONS)

VHF-FM service offers reliable operation with good transmission quality over relatively short distances up to 20-50 miles. Locations of VHF-FM coast stations operating in the continental United States are shown in Appendix 4. Continuing activity in new station construction makes this or any similar information subject to frequent corrections. Channels 24, 25, 26, 27, 28, 84, 85, 86 and 87 are available for assignment to public coast stations in the United States. Channels 26 and 28 are used in more areas than any others.

In addition, in some localities not yet served by VHF-FM coast stations, ships are permitted to make telephone calls through local VHF-FM base stations operating in the land mobile radio telephone service. In these instances, a different license authorization as well as different transmitting equipment is required.

MEDIUM FREQUENCY SERVICE (PUBLIC CLASS II-B COAST STATIONS)

The Medium Frequency Service operates over considerably greater distance ranges than VHF-FM, but ranges vary widely with time of day and a variety of other circumstances. Distances in excess of 1,000 miles are possible at certain times, but may be limited to less than 100 miles at other times.

Class II-B Coast stations operate on frequencies in the 2 MHz band along the sea coasts and Gulf of Mexico. Stations serving the Great Lakes and the Mississippi River valley also operate on frequencies in the high-frequency bands. Appendix 5 shows the Class II-B public coast stations operating in the United States exclusive of Alaska. The frequencies listed are those of present single sideband (SSB) channels.

Medium Frequency Public Coast Station Service has recently undergone conversion from double sideband (DSB) to single sideband (SSB) operation. All DSB operations are scheduled to terminate by January 1, 1977. Until 1977, coast stations are capable of using the compatible mode of SSB, known as A3H (full carrier), to enable continued service to vessels equipped for DSB. Ships equipped with SSB equipment should employ the A3A (reduced carrier mode) when communicating with public coast stations. Coast stations will employ the A3H mode and A3A (reduced carrier) until 1977, and A3A only thereafter.

HIGH FREQUENCY SERVICE (PUBLIC CLASS I-B COAST STATIONS)

A High Seas Service using high frequencies provides long-range radiotelephone communications with suitably equipped vessels throughout the world. Service is provided via four coast stations within the United States coastal areas plus one station in the state of Hawaii. These stations operate on various radio channels in the 4 through 23 MHz bands and are equipped for single sideband operation.

Single sideband propagation on the radio channels assigned to this service differs with the time of day, season, and vessel location. Vessel operators contemplating use of this service may obtain information concerning choice of channels for given locations, time, and season by placing a call or writing to the station operations manager. The addresses and telephone numbers of the operations managers are:

STATION OPERATING COMPANY & ADDRESS

KMI American Telephone & Telegraph Company
Post Office Box 8
Inverness, California 94937
Tel. 415—669-1055

- KQM RCA Global Communications, Inc.
223 S. King
Honolulu, Hawaii 96813
Tel. 808—537-2521
- WLO Mobile Marine Radio, Inc.
Route 12 Box 218
Mobile, Alabama 36609
Tel. 205—666-5110
- WOM American Telephone & Telegraph Company
1350 Northwest 40th Street
Fort Lauderdale, Florida 33313
Tel. 305—587-0910
- WOO American Telephone & Telegraph Company
Post Office Box 558
Manahawkin, New Jersey 08050
Tel. 609—597-3411

REGISTRATION WITH YOUR PUBLIC COAST STATION

It is important for the vessel owner who plans on using the public radio-telephone service to register with the telephone company in the location where you wish to be billed.

This registration provides all coast stations with the name and address to be used in billing for ship-originated calls. Public coast stations are supported by charges made in accordance with tariffs filed with regulatory authorities. If a ship is not registered, billing information must be passed to the coast station operator each time a call is made, with consequent expenditure of time and effort. Registration may also serve to establish the procedures under which a coast station will call the ship in completing land-originated calls. Ship stations equipped for Ringer Service must register in order to obtain assignment of a radiotelephone or ringer number. Telephone numbers are provided in appendices for your use in registering your vessel for this service. Should you encounter any problems, contact your local telephone company business office and request assistance in registering your vessel.

PROCEDURES FOR PLACING AND RECEIVING TELEPHONE CALLS VIA PUBLIC COAST STATIONS

Making Ship-To-Shore Calls:

Use the VHF-FM Service (up to 20 to 40 miles) in preference to the Medium Frequency or High Frequency Services, if within range.

1. Select the public correspondence channel assigned to the desired shore station (see Appendix 4 or 5). Do not call on Channel 16 or on 2182 kHz except in an emergency.
2. Listen to determine if the working channel of the desired coast station is busy. A busy condition is evidenced by hearing speech, signaling tones, or a busy signal.
3. If the channel is busy, wait until it clears or switch to an alternate channel if available.
4. If the channel is not busy, press the push-to-talk button and say: (Name of the coast station) THIS IS (your call sign once). Release the button. This initial call should be brief and, if spoken distinctly, should last no more than five or six seconds. Don't be too brief, however. Many Public Coast Stations require this call to be at least two or three seconds in duration before the "Call Lamp" lights at the Operator's position.
5. Listen for a reply. If none is heard, repeat call after an interval of two minutes.
6. When the coast station operator answers, say:
THIS IS—(Name of vessel, call sign, and ship's telephone or billing number if assigned), PLACING A CALL TO (city, telephone number desired). Inform operator of type of billing desired (e.g., Ship paid calls, collect call, credit card call or third number charge call).
If billing information for your vessel has not been registered, the operator will ask for additional identification for billing purposes.
At completion of call say:
Name of vessel—Call sign—OUT.

Receiving Shore-to-Ship Calls

Obviously, to receive public coast station calls, a receiver must be in operation on the proper channel. When calling on VHF-FM frequencies, coast stations will call on Channel 16 unless you have Ringer Service, in which case the shore station will dial your number on a working channel. When calling on medium frequencies, the preferred channel is the working channel of the coast station. Bell System coast stations operating on channels in the 2 MHz band routinely call on a working channel, but will call on 2182 kHz when requested to do so by the calling party. If you are expecting calls on medium frequencies and are not planning to monitor the working channel, you should tell prospective calling parties to so advise the Marine Operator. Note: A guard must be maintained on the distress, safety and calling channel; therefore a second channel receiver capability is essential if a guard is to be maintained on a coast station working channel.

Ringer Service, of course, requires a second receiver, since monitoring of the working channel would be essential. It is illegal to send dial pulses over Channel 16 or 2182 kHz.

Making Ship-to-Ship Calls Through a Coast Station

Although contacts between ships are normally made directly, ship-to-ship calls can be made by going through your coast station, using the same procedure as you do for the ship-to-shore calls.

Making Inland Waterways Calls

Radiotelephone traffic on the rivers and inland waterways is handled through WCM Pittsburgh, WFN Louisville, WGK St. Louis, and WJG Memphis, operating in the 2, 4, 6, and 8 MHz bands, and the 157-162 MHz band. Ringer Service is provided on all bands through all stations except WFN Louisville. In addition to calling vessels and ringing them on the working channels, each coast station makes calls on Channel 16 if contact is not made on a working channel. Station data locations are shown in Appendices 4 and 5.

How to Place a Shore-to-Ship Call

The basic procedure that the telephone subscriber should follow in placing a telephone call to a ship station from his home or office is found in the first few pages of most Telephone Directories. These instructions generally consist of dialing "O" (Zero) for the Operator, and asking for "the marine operator."

It is further necessary to know the name of the vessel being called (not the owner's name) and the approximate location so that the Marine Operator may judge which coast station to place the call through.

More specific information about the vessel is often useful, such as the channel generally monitored for receiving calls, the ringer number (if applicable), and the coast station through which calls can generally be received.

Remember that the ship station generally operates using push-to-talk techniques, so that it is impossible for you to break in while the ship station is being received.

Chapter 7. Limited Coast Stations

The term *limited coast station* includes coast stations which are there to serve the operational and business needs of vessels, but are not open to public correspondence. Many, such as those operated by a harbor master coordinating the movement of vessels within a confined area, or a station at a highway bridge, serve a safety function as well. Shore stations operated by the United States Coast Guard provide a safety communications service rather than business or operational. They are classified as Government stations rather than as limited coast stations although they also are not open to public correspondence.

While limited coast stations are not new to the Marine Service, most small vessel operators are finding this service available for the first time on VHF-FM. Thus, tug companies may have a limited coast station for the purpose of dispatching their own tugs. A fleet of fishing vessels may be directed from a limited coast station operated by a fish cannery.

Yacht clubs having docking facilities, marina operators, ship chandlers, boatels, harbor masters, dock-site restaurants, marine police, and marine radio service shops are among those who maintain and operate limited coast stations as a part of their regular operations. No charge is made for the communications service, which is incidental to their business.

HOW TO USE THE SERVICES OF LIMITED COAST STATIONS

Vessels should call limited coast stations on the limited coast station's working channel. All limited coast stations have Channel 16 plus one or more working channels. Limited coast stations, on the other hand, will call boats on Channel 16; therefore, you do not need to monitor his working channel even if you are expecting a call.

As a general rule, limited coast stations operate only during their normal working hours. The calling procedure to use is the same as you would use to call another vessel (see chapter 4), except that you should initiate the call on the coast station's working channel. Be sure to give them plenty of time to answer your call as operating the radio is secondary to the operator's normal tasks. Many of these stations monitor Channel 16 as well as their working channels. If you don't know their assigned working channel, or if they don't appear to be watching their working channel, call on Channel 16.

FCC FIELD OFFICES

- ALASKA, Anchorage**
 U.S. Post Office Bldg. Room G63
 4th & F Street, P.O. Box 644
 Anchorage, Alaska 99510
 Phone: 907 265-5201
- CALIFORNIA, Long Beach**
 3711 Long Beach Blvd., Room 501
 Long Beach, California 90807
 Phone: 213 426-4451
- CALIFORNIA, San Diego**
 Fox Theater Building
 1245 Seventh Avenue
 San Diego, California 92101
 Phone: 714 293-5478
- CALIFORNIA, San Francisco**
 323A Customhouse
 555 Battery Street
 San Francisco, California 94111
 Phone: 415 556-7701
- COLORADO, Denver**
 The Executive Tower, Suite 2925
 1405 Curtis Street
 Denver, Colorado 80202
 Phone: 303 837-5137
- DISTRICT OF COLUMBIA (Washington, D.C.)**
 1919 M Street, N.W., Room 411
 Washington, D.C. 20554
 Phone: 202 632-8834
- FLORIDA, Miami**
 919 Federal Building
 51 S.W. First Avenue
 Miami, Florida 33130
 Phone: 305 350-5541
- FLORIDA, Tampa**
 Barnett Office Building
 1000 Ashley Drive, Room 809
 Tampa, Florida 33602
 Phone: 813 228-2872
- GEORGIA, Atlanta**
 1365 Peachtree Street, N.E., Room 404
 Atlanta, Georgia 30309
 Phone: 404 881-3084
- GEORGIA, Savannah**
 Federal Bldg. & Court House, Room 238
 125 Bull Street, P.O. Box 8004
 Savannah, Georgia 31402
 Phone: 912 232-4321
- HAWAII, Honolulu**
 Prince Kuhio Federal Building
 300 Ala Moana Blvd., Room 7304
 Honolulu, Hawaii 96850
 Phone: 808 546-5640
- ILLINOIS, Chicago**
 3935 Federal Building
 230 South Dearborn Street
 Chicago, Illinois 60604
 Phone: 312 353-0195
- LOUISIANA, New Orleans**
 829 F. Edward Hebert Federal Building
 600 South Street
 New Orleans, Louisiana 70130
 Phone: 504 589-2094
- MARYLAND, Baltimore**
 819 Federal Building
 31 Hopkins Plaza
 Baltimore, Maryland 21201
 Phone: 301 962-2728
- MASSACHUSETTS, Boston**
 1600 Customhouse
 165 State Street
 Boston, Massachusetts 02109
 Phone: 617 223-6609
- MICHIGAN, Detroit**
 1054 Federal Building
 231 W. Lafayette Street
 Detroit, Michigan 48226
 Phone: 313 226-6079
- MINNESOTA, St. Paul**
 691 Federal Building and U.S. Court House
 316 N. Robert Street
 St. Paul, Minnesota 55101
 Phone: 612 725-7810
- MISSOURI, Kansas City**
 1703 Federal Building
 601 East 12th Street
 Kansas City, Missouri 64106
 Phone: 816 374-6155
- NEW YORK, Buffalo**
 1307 Federal Building
 111 W. Huron Street at Delaware Ave.
 Buffalo, New York 14202
 Phone: 716 842-3216
- NEW YORK, New York**
 201 Varick Street
 New York, New York 10014
 Phone: 212 620-3437

OREGON, Portland
1782 Federal Office Bldg.
1220 S.W. 3rd Avenue
Portland, Oregon 97204
Phone: 503 221-3098

PENNSYLVANIA, Philadelphia
11425 James A. Byrne Federal Courthouse
601 Market Street
Philadelphia, Pennsylvania 19106
Phone: 215 597-4411

PUERTO RICO, Hato Rey
747 Federal Building
Hato Rey, Puerto Rico 00918
Phone: 809 753-4567

TEXAS, Beaumont
Room 323, Federal Building
300 Willow Street
Beaumont, Texas 77701
Phone: 713 838-0271

TEXAS, Dallas
Earle Cabell Federal Bldg. U.S. Courthouse
Room 13E7, 1100 Commerce Street
Dallas, Texas 75242
Phone: 214 749-1719

TEXAS, Houston
5636 New Federal Office Building
515 Rusk Avenue
Houston, Texas 77002
Phone: 713 226-5624

VIRGINIA, Norfolk
Military Circle
870 North Military Highway
Norfolk, Virginia 23502
Phone: 804 441-6472

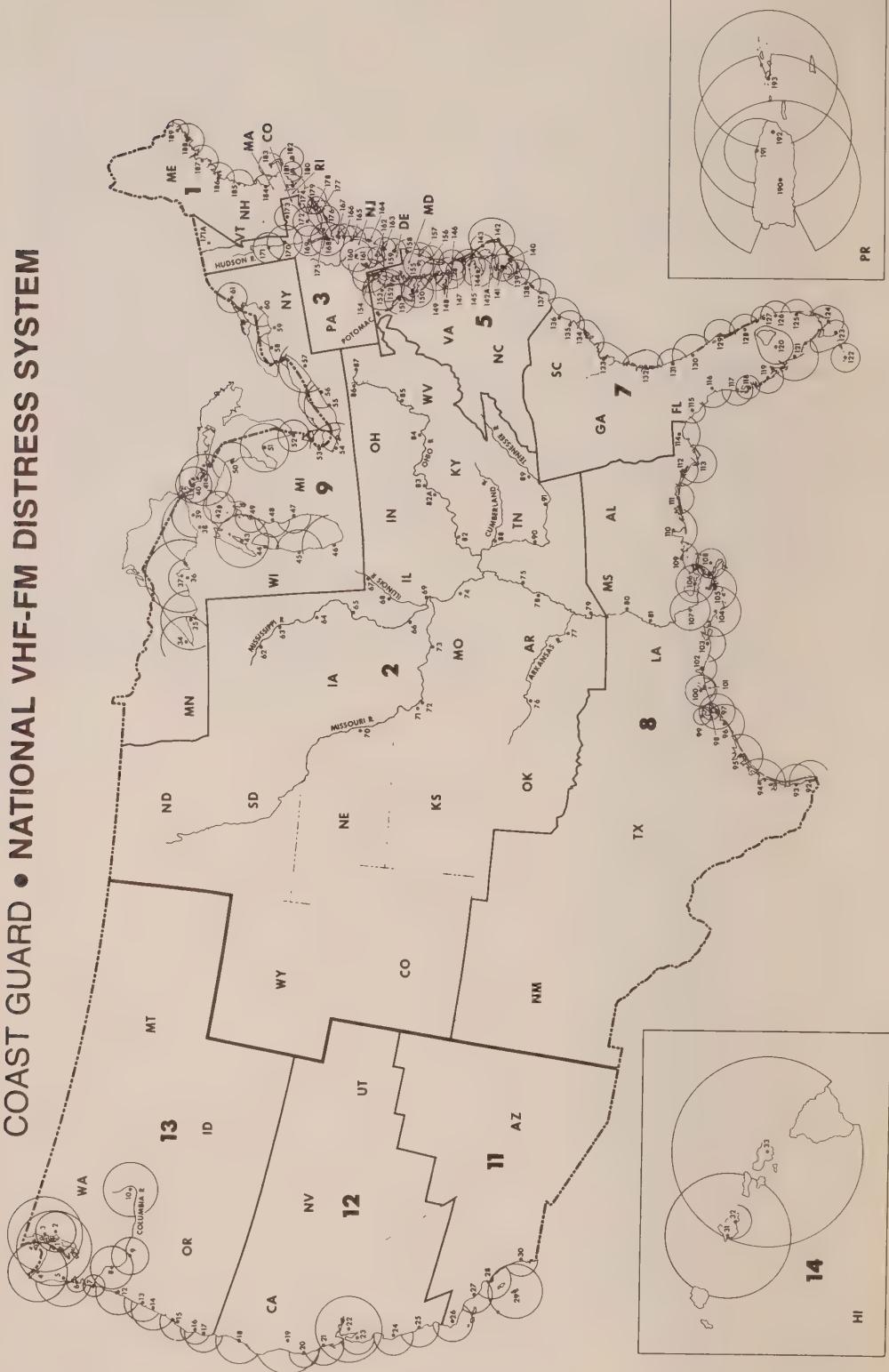
WASHINGTON, Seattle
3256 Federal Bldg.
915 Second Avenue
Seattle, Washington 98174
Phone: 206 442-7654

U.S. COAST GUARD NATIONAL VHF-FM DISTRESS SYSTEM

The Coast Guard VHF-FM station location map illustrated in Appendix 2 comprises the National VHF-FM Distress System that was designed to provide complete coverage to at least 20 miles offshore, and on most inland navigable waterways and large bodies of water on Channel 16 (156.8 MHz).

A vessel in distress or needing assistance can reach the Coast Guard on the distress frequency 156.8 MHz. If you are not in immediate danger, you will be shifted to the working frequency Channel 22A (157.1 MHz) for further communications. This procedure keeps the distress channel open for other emergency calls. If you are in grave and imminent danger, your call should be preceded by the word "MAYDAY" spoken three times followed by the emergency call procedures described in Chapter 5.

COAST GUARD • NATIONAL VHF-FM DISTRESS SYSTEM



MARINE WEATHER SERVICE

NOAA Weather Radio is a service of the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce. It provides continuous, around-the-clock broadcasts of the latest weather information directly from National Weather Service offices. Taped weather messages are repeated every four to six minutes and are routinely revised every two to three hours, or more frequently if needed.

The broadcasts are tailored to weather information needs of people within the receiving area. For example, stations along the sea coasts and Great Lakes provide specialized weather information for boaters, fishermen, and others engaged in marine activities, as well as general weather information.

During severe weather, National Weather Service forecasters can interrupt the routine weather broadcasts and substitute special warning messages. The forecasters can also activate specially designed warning receivers. Such receivers either sound an alarm indicating that an emergency exists, alerting the listener to tune in the weather frequency, or, when operated in a muted mode, are automatically turned on so that the warning message is heard.

NOAA Weather Radio broadcasts are received on one of three VHF channels—162.40, 162.475 or 162.55 MHz. The recent addition of frequency 162.475 MHz is used only in special cases where required to avoid channel interference. These channels are generally designated on marine VHF equipment as WX-1 (162.55 MHz), WX-2 (162.40 MHz), and WX-3 (162.475 MHz).

NOAA Weather Radio broadcasts can usually be heard as far as 40 miles from the antenna site, sometimes more. The effective range depends on many factors, particularly the height of the broadcasting antenna, terrain, quality of the receiver and type of receiving antenna. As a general rule, listeners close to or perhaps beyond the 40-mile range should have a good quality receiver system if they expect reliable reception. If practicable, a receiver should be tried at its place of intended use before making a final purchase.

In addition to the NOAA Weather Radio stations listed below, the National Weather Service hopes to establish over 200 more stations to complete the network by the end of 1979. When these stations are installed, approximately 90 percent of the population of the United States should be within listening range of a NOAA Weather Radio broadcast.

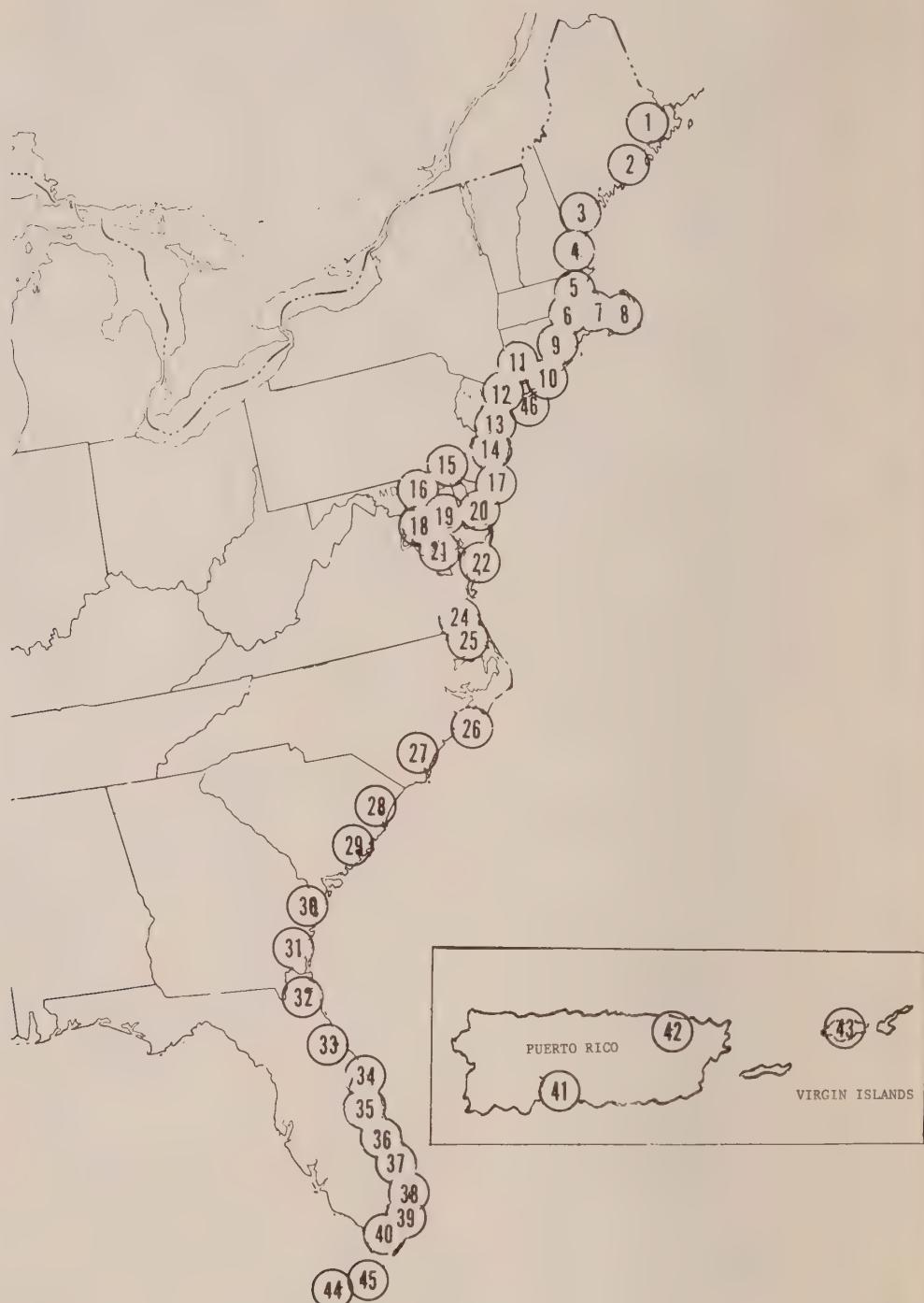
If more information on NOAA Weather Radio is required, you may write to: National Weather Service (ATTN: W112), National Oceanic and Atmospheric Administration, Silver Spring, Maryland, 20910.

NOAA VHF WEATHER STATION LIST

WX-1: 162.550 MHz	Key West	WX-2	MAINE	
WX-2: 162.400 MHz	Miami	WX-1	Ellsworth	WX-2
WX-3: 162.475 MHz	Orlando	WX-3	Portland	WX-1
	Panama City	WX-1		
	Pensacola	WX-2		
ALABAMA	Tallahassee	WX-2	MARYLAND	
Anniston	WX-3		Baltimore	WX-2
Birmingham	WX-1		Salisbury	WX-2
Dozier	WX-1			
Florence	WX-3			
Huntsville	WX-2		MASSACHUSETTS	
Louisville	WX-3		Boston	WX-2
Mobile	WX-1		Hyannis	WX-1
Montgomery	WX-2			
Tuscaloosa	WX-2		MICHIGAN	
	GEORGIA		Alpena	WX-1
	Atlanta	WX-1	Clio	WX-2
	Savannah	WX-2	Detroit	WX-1
			Flint	WX-2
ALASKA	HAWAII		Grand Rapids	WX-1
Anchorage	Hilo	WX-1	Marquette	WX-1
Homer	Honolulu	WX-1	Sault Ste. Marie	WX-1
Juneau	Kauai (Mt. Kokee)	WX-2	Traverse City	WX-1
Ketchikan	Maui	WX-2		
Seward	Mt. Haleakala	WX-2		
Valdez			MINNESOTA	
	ILLINOIS		Duluth	WX-1
	Chicago	WX-1	Minneapolis	WX-1
ARIZONA	INDIANA			
Phoenix	WX-1		MISSOURI	
	Evansville	WX-1	Kansas City	WX-1
CALIFORNIA	Indianapolis	WX-1	St. Joseph	WX-2
Coachella	WX-2		St. Louis	WX-1
Eureka	WX-2			
Fresno	WX-2		MISSISSIPPI	
Los Angeles	WX-1		Ackerman	WX-3
Monterey	WX-2		Booneville	WX-1
Point Arena	WX-2		Bude	WX-1
Sacramento	WX-2		Gulfport	WX-2
San Diego	WX-2		Inverness	WX-1
San Francisco	WX-1		Jackson	WX-2
San Luis Obispo	WX-1		McHenry	WX-3
Santa Barbara	WX-2		Meridan	WX-1
	KANSAS		Oxford	WX-2
	Wichita	WX-1		
COLORADO	KENTUCKY			
Denver	WX-1			
	Ashland	WX-1		
	Bowling Green	WX-2		
	Covington	WX-1		
	Hazard	WX-3		
	Lexington	WX-2		
	Louisville	WX-3		
CONNECTICUT				
Hartford	WX-3		MONTANA	
Meriden	WX-2		Great Falls	WX-1
New London	WX-1			
	LOUISIANA		NEBRASKA	
	Baton Rouge	WX-2	Omaha	WX-2
	Lake Charles	WX-1		
FLORIDA	Morgan City	WX-3	NEW HAMPSHIRE	
Daytona Beach	WX-2			
Jacksonville	WX-1		Concord	WX-3
	New Orleans	WX-1		

NEW JERSEY		OREGON		TEXAS	
Atlantic City	WX-2	Astoria	WX-2	Brownsville	WX-1
		Brookings	WX-1	Corpus Christi	WX-1
NEW MEXICO		Coos Bay	WX-2	Dallas	WX-2
Albuquerque	WX-2	Eugene	WX-2	Fort Worth	WX-1
		Newport	WX-1	Galveston	WX-1
		Portland	WX-1	Houston	WX-2
				Pharr	WX-2
NEW YORK		PENNSYLVANIA		UTAH	
Buffalo	WX-1	Erie	WX-2	Salt Lake City	WX-1
New York	WX-1	Philadelphia	WX-3		
Rochester	WX-2	Pittsburgh	WX-1	VIRGINIA	
NORTH CAROLINA		RHODE ISLAND		Manassas	WX-1
Cape Hatteras	WX-1	Providence	WX-2	Norfolk	WX-1
New Bern	WX-2			VERMONT	
Wilmington	WX-1	SOUTH CAROLINA		Burlington	WX-2
OHIO		Beaufort	WX-3	WASHINGTON	
Akron	WX-2	Charleston	WX-1	Neah Bay	WX-1
Cleveland	WX-1	Columbia	WX-2	Seattle	WX-1
Columbus	WX-1	Florence	WX-1	Yakima	WX-1
Sandusky	WX-2	Greenville	WX-1	WISCONSIN	
		Myrtle Beach	WX-2	Green Bay	WX-1
OKLAHOMA		TENNESSEE		Milwaukee	WX-2
Tulsa	WX-1	Nashville	WX-1		

VHF-FM PUBLIC COAST STATIONS—ATLANTIC COAST

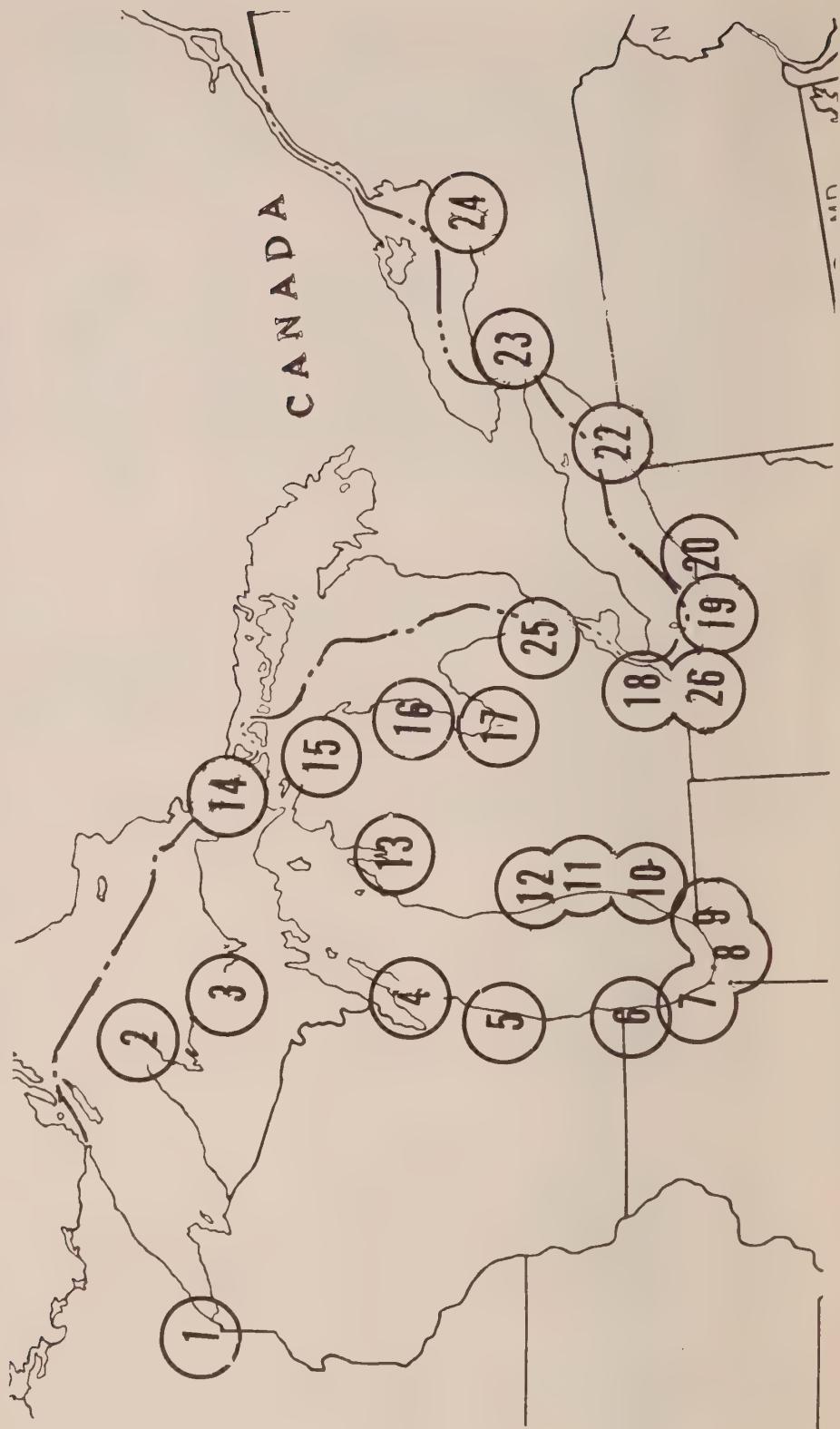


VHF-FM PUBLIC COAST STATIONS—ATLANTIC COAST

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION	REGISTRATION INFORMATION
KOU 620 KTD 590 KVF 856	Camden, Me. Cape Elizabeth, Me. Southwest Harbor, Me.	(2) (3) (1)	26 & 27 28 28	Coastal Communications, Inc. Portland Marine Radio Coastal Communications, Inc.	(Call sign only) (Call sign only) (Call sign only)	Dial "0" (207) 799-4111 Dial "0"
KOU 555	New Castle, N.H.	(4)	28	Comex, Inc.	Portsmouth Marine Opr.	(603) 668-3000
KJC 737 KQU 634 KCD 817	New Bedford, Mass. Hyannis, Mass. Quincy, Mass.	(7) (8) (5)	24 & 26 28 26	Great Eastern Communications Co. Niagara Communications, Inc. New England Telephone Co.	New Bedford Marine Opr. Hyannis Marine Opr. Boston Marine Opr.	(617) 994-8523 (716) 894-1763 (617) 743-6547
KTR 948	Providence, R.I.	(6)	28	Niagara Communications, Inc.	Providence Marine Opr.	(716) 894-1763
KWB 437 KLU 787 KLU 785	Groton, Conn. Monroe, Conn. Stratford, Conn.	(9) (11) (11)	25 & 26 24 27	Great Eastern Communications Co. Liberty Communications Great Eastern Communications Co.	New London Marine Opr. Bridgeport Marine Opr. Channel 24 Bridgeport Marine Opr. Channel 27	(203) 445-2777 (203) 372-0373 (203) 366-4582
KZN 548 KEA 693 KLU 786	Bay Shore, N.Y. New York, N.Y. Riverhead, N.Y.	(12) (10)	85 84, 25, 26 28	New York Telephone Co. New York Telephone Co. New York Telephone Co.	Bay Shore Marine Opr. New York Marine Opr. Riverhead Marine Opr.	(516) 360-9860 (516) 360-9860 (516) 360-9860

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	MARINE OPERATOR IDENTIFICATION		REGISTRATION INFORMATION
				LICENSEE		
NEW JERSEY						
KQJ 556	Navesink, N.J.	(13)	24	New Jersey Bell Telephone Co.	Sandy Hook Marine Opr.	(609) 347-9900
KGW 292	Berkeley Township, N.J.	(14)	27	New Jersey Bell Telephone Co.	Tom's River Marine Opr.	(609) 347-9900
KGW 378	Sea Isle City, N.J.	(17)	26	New Jersey Bell Telephone Co.	Atlantic City Marine Opr.	(609) 347-9900
DELAWARE						
KVF 855	Delaware Bay	(20)	27	The Diamond State Telephone Co.	Lewes Marine Opr.	(215) 466-3193
KVR 460	Delaware River	(15)	28	The Diamond State Telephone Co.	Wilmington Marine Opr.	(215) 466-3193
MARYLAND						
KGD 518	Chesapeake Bay	(16)	25 & 26	Chesapeake & Potomac Tel. Co.	Baltimore Marine Opr.	(301) 537-9900
KRS 907	Chesapeake Bay	(19)	28	Chesapeake & Potomac Tel. Co.	Cambridge Marine Opr.	(301) 537-9900
KSX 223	Ocean City, Md.	(22)	26	Chesapeake & Potomac Tel. Co.	Ocean City, Md., Marine Opr.	(301) 537-9900
KSX 209	Chesapeake Bay	(18)	27	Radio Communications, Inc.	Prince Frederick Marine Opr.	(301) 535-1670
KAQ 383	Chesapeake Bay	(21)	26	Chesapeake & Potomac Tel. Co.	Point Lookout Marine Opr.	(301) 537-9900
VIRGINIA						
KLC 631	Norfolk/Hampton, Va.	(24)	26 & 27	Chesapeake & Potomac Tel. Co.	Norfolk Marine Opr.	(804) 461-9911
NORTH CAROLINA						
KXE 293	Albermarle Sound	(25)	24	Marine Telephone Company	Elizabeth City Marine Opr.	(919) 338-2919
KRS 910	Morehead City/ Beaufort, N.C.	(26)	28	Marine Telephone Company	Morehead City Marine Opr.	(919) 726-1070
KFT 301	Wilmington, N.C.	(27)	26	Marine Telephone Company	(Call sign only)	(919) 762-2444

VHF-FM PUBLIC COAST STATIONS—GREAT LAKES



GREAT LAKES

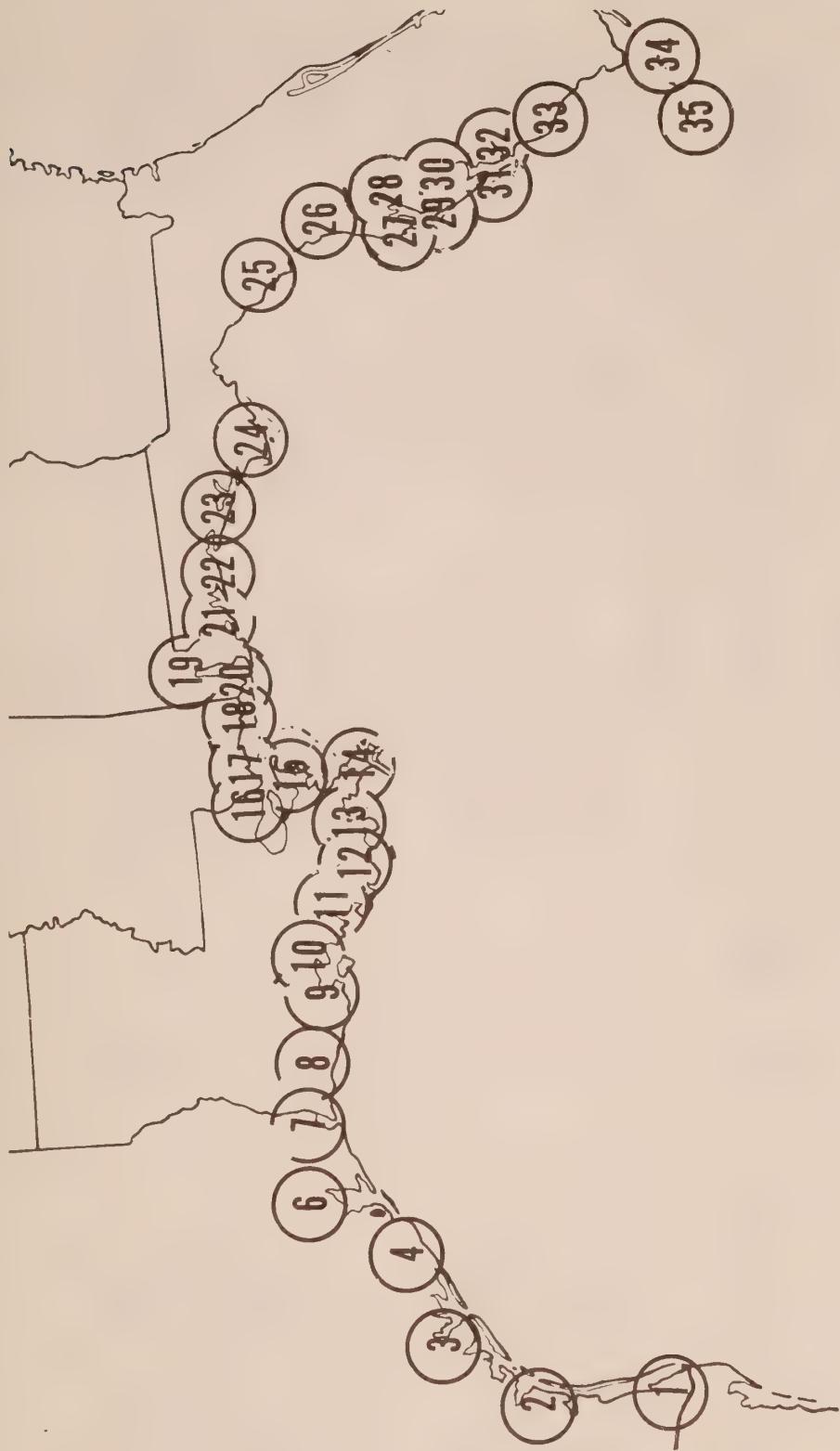
REGISTRATION INFORMATION

MARINE OPERATOR IDENTIFICATION

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION
GREAT LAKES					
KVY 601	Duluth, Minn.	(1)	28	Lorain Electronics Corp.	Duluth Marine Opr. (218) 525-5396
KVY 604	Sturgeon Bay, Wisc.	(4)	28	Lorain Electronics Corp.	(414) 743-6097
KVY 605	Port Washington, Wisc.	(5)	26 & 28	Lorain Electronics Corp.	(414) 284-5597
MINNESOTA					
WISCONSIN					
KTD 564	Waukegan, Ill.	(6)	84	Illinois Bell Telephone Co.	Sturgeon Bay Marine Opr. Port Washington Marine Opr. (414) 743-6097
WAY 200	Chicago, Ill.	(7)	27 & 26	Illinois Bell Telephone Co.	(414) 284-5597
ILLINOIS					
KAU 578	Portage, Ind.	(8)	28	Burns Harbor Radio	Waukegan Marine Opr. Chicago Marine Opr. (312) 727-5574
KLU 757	Michigan City, Ind.	(9)	28	Burns Harbor Radio	(Call sign only) (Call sign only) (Call sign only) (Call sign only)
INDIANA					
MICHIGAN					
KVY 602	Copper Harbor, Mich.	(2)	26 & 85	Lorain Electronics Corp.	Copper Harbor Marine Opr. Grand Marais Marine Opr. (906) 289-4501
KVY 603	Grand Marais, Mich.	(3)	28	Lorain Electronics Corp.	Grand Marais Marine Opr. (906) 494-2651
KSX 283	St. Joseph, Mich.	(10)	24	Harbor Communications, Inc.	(Call sign only) (616) 983-0517
KQU 438	Saugatuck, Mich.	(11)	25	Saugatuck Radio	(Call sign only) (616) 392-2354
KQU 546	Muskegon Hts., Mich.	(12)	26	Waldo I. Wilson	(Call sign only) (616) 733-2007
WLC	Charlevoix, Mich.	(13)	26	Central Radio Telegraph Co.	Charlevoix Marine Opr. (517) 734-2146
KQB 667	Sault Ste. Marie, Mich.	(14)	26	Michigan Bell Telephone Co.	Sault Ste. Marie Marine Opr. (313) 569-4880
WLC	Rogers City, Mich.	(15)	26 & 28	Central Radio Telegraph Co.	Rogers City Marine Opr. (517) 734-2146
WLC	Tawas City, Mich.	(16)	26	Central Radio Telegraph Co.	Tawas City Marine Opr. (517) 734-2146
KUF 718	Bay City, Mich.	(17)	28	King Communications, Inc.	(Call sign only) (517) 893-4531
KQB 666	Detroit, Mich.	(18)	26 & 28	Michigan Bell Telephone Co.	Detroit Marine Opr. (313) 569-4880
KAD 806	Bolles Harbor, Mich.	(26)	25	Toledo Marine Telephone Co.	(313) 241-5202
KAD 836	Marysville, Mich.	(25)	25	Michigan Bell Telephone Co.	(313) 569-4880
					Port Huron Marine Opr. (313) 569-4880

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION	REGISTRATION INFORMATION
WMI KQU 440	Lorain, Ohio Cleveland, Ohio	(19) (20)	26 & 28 28	Lorain Electronics Corp. Lorain Electronics Corp.	Lorain Marine Opr. (Call sign only)	(216) 282-8030 (216) 282-8030
KLU 745	Erie, Pa.	(22)	25	Professional Communications, Inc.	(Call sign only)	(814) 455-8014
WBL KLU 788	Martinsville, N.Y. Rochester, N.Y.	(23) (24)	26 25	Great Lakes Marine Radio, Inc. Tel-Page Corporation	Buffalo Marine Radio Opr. Rochester Channel 25	(716) 692-5678 (914) 831-4290

VHF-FM PUBLIC COAST STATIONS—GULF OF MEXICO



GULF OF MEXICO

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION	REGISTRATION INFORMATION
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TEXAS

KLG 376	Brownsville, Tex.	(1)	26	Mobilfone Service, Inc.	(Call sign only)	(512) 682-3171
KWB 424	Corpus Christi, Tex.	(2)	26	Mobilfone Service, Inc.	(Call sign only)	(512) 884-1915
KGW 295	Port Lavaca, Tex.	(3)	26	Texas Marine Radiotelephone Co.	(Call sign only)	(512) 552-5751
KGW 304	Freeport/Bay City, Tex.	(4)	25 & 27	Mobilfone Service, Inc.	(Call sign only)	(713) 245-9151
KKD 742	La Marque, Tex.	(5)	24 & 28	Southwestern Bell Telephone Co.	Galveston Marine Opr.	(713) 521-8123
KKD 739	La Porte, Tex.	(6)	26	Southwestern Bell Telephone Co.	Houston Marine Opr.	(713) 521-8123
KKD 741	Port Arthur, Tex.	(7)	26 & 27	Southwestern Bell Telephone Co.	(Call sign only)	(713) 521-8123

LOUISIANA

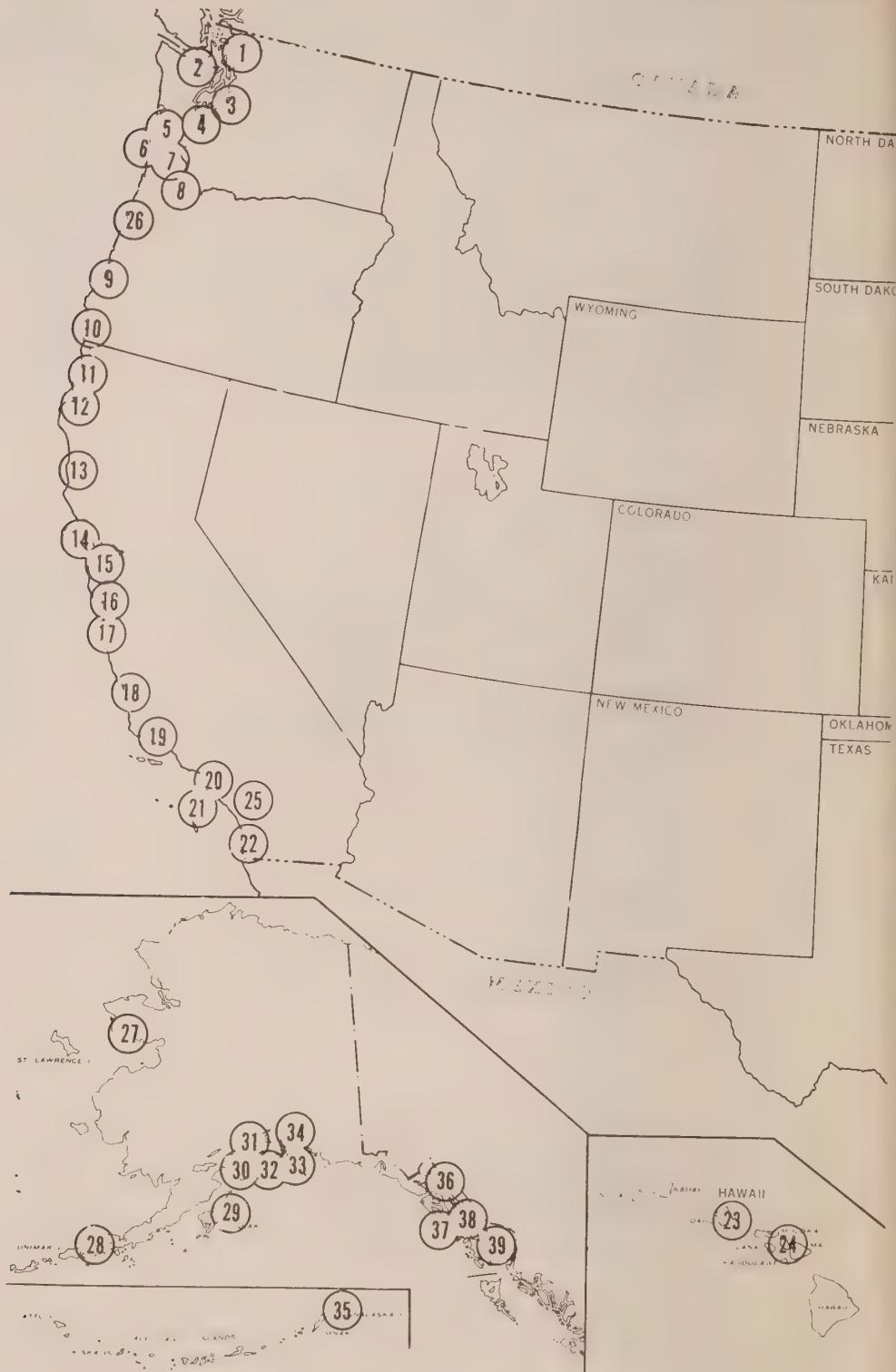
KQU 437	Cameron, La.	(8)	24	Cameron Telephone Co.	(Call sign only)	(318) 583-2111
KKM 649	Erath, La.	(9)	25, 86, 87	South Central Bell Telephone Co.	Erath Marine Opr.	(318) 232-1622
KGN	DeCambre, La.	(10)	28 & 85	Delcambre Telephone Company	Delcambre Marine Opr.	(318) 685-2344
KKD 732	Morgan City, La.	(11)	24 & 26	South Central Bell Telephone Co.	Morgan City Marine Opr.	(504) 872-9001
KSK 317	Cocodrie, La.	(12)	27	Microcom, Inc.	(Call sign only)	(504) 837-8330
KKO 382	Leeville, La.	(13)	25	Lafourche Telephone Company	(Call sign only)	(504) 693-3111
KSX 316	Leeville, La.	(13)	85	Lafourche Telephone Company	(Call sign only)	(504) 693-3111
KJC 784	Venice, La.	(14)	27, 28, 86	South Central Bell Telephone Co.	Venice Marine Opr.	(504) 362-2967
KSX 305	Hopedale, La.	(15)	85	South Central Bell Telephone Co.	Hopedale Marine Opr.	(504) 362-2967
KUZ 557	Slidell, La.	(16)	84	South Central Bell Telephone Co.	Slidell Marine Opr.	(504) 362-2967

MISSISSIPPI

KKM 650	Gulfport, Miss.	(17)	28	South Central Bell Telephone Co.	Gulfport Marine Opr.	(601) 388-9924
KLU 775	Pascagoula, Miss.	(18)	27	Answer Iowa, Inc.	Pascagoula Marine Opr.	(601) 762-9525

APPENDIX 4

VHF-FM PUBLIC COAST STATIONS—PACIFIC COAST



* For all RCA Alaska locations, telephone (907) 276-6811, extension 224 (Anchorage, Alaska, Market Dept.)

**REGISTRATION
INFORMATION**

**MARINE OPERATOR
IDENTIFICATION**

**CALL
SIGN**

**MAP
NO.**

**VHF
CHANNEL**

SERVICE AREA

OREGON

KOF 209	Astoria, Ore.	(6)	26	Pacific Northwest Bell Telephone Co.
KBA 333	Rainier, Ore.	(7)	28	Pacific Northwest Bell Telephone Co.
KOF 815	Portland, Ore.	(8)	26	Pacific Northwest Bell Telephone Co.
KTJ	Coos Bay, Ore.	(9)	25	General Telephone Co. of Northwest, Inc.
KZV 784	Newport, Ore.	(26)	28	Pacific Northwest Bell Telephone Co.
KRS 905	Brookings, Ore.	(10)	27	Curry County Communications

(Call sign only)

Astoria Marine Opr.	(503) 224-6261
Rainier Marine Opr.	(503) 224-6261
Portland Marine Opr.	(503) 224-6261
Coos Bay Marine Opr.	(503) 269-1141
Newport Marine Opr.	(503) 224-6261
(Call sign only)	(503) 469-2114

CALIFORNIA

KTR 967	Klamath City, Cal.	(11)	28	CAL/AUTO/FONE
KQU 594	Kneeland, Cal.	(12)	26	Pacific Telephone & Telegraph Co.
KQU 591	Casper, Cal.	(13)	28	Pacific Telephone & Telegraph Co.
KXC 711	Pt. Reyes, Cal.	(14)	25	Pacific Telephone & Telegraph Co.
KMH 828	Oakland, Cal.	(15)	26 & 84	Pacific Telephone & Telegraph Co.
KUZ 408	Skyland Road, Cal.	(16)	27	General Telephone Co. of Calif.
KTR 860	Salinas, Cal.	(17)	28	Salinas Valley Radio Telephone Co.
KLU 727	San Luis Obispo, Cal.	(18)	26	R.C.S., Inc.
KUF 739	Santa Barbara, Cal.	(19)	25	General Telephone Co. of Calif.
KUF 847	San Pedro Hill, Cal.	(20)	27 & 85	Radiocall Corporation
KMB 393	Avalon, Cal.	(21)	24 & 26	Pacific Telephone & Telegraph Co.
KMB 394	San Diego, Cal.	(22)	28 & 86	Pacific Telephone & Telegraph Co.
KUF 726	Santiago Peak, Cal.	(25)	84	Dana Point Marine Telephone Co.

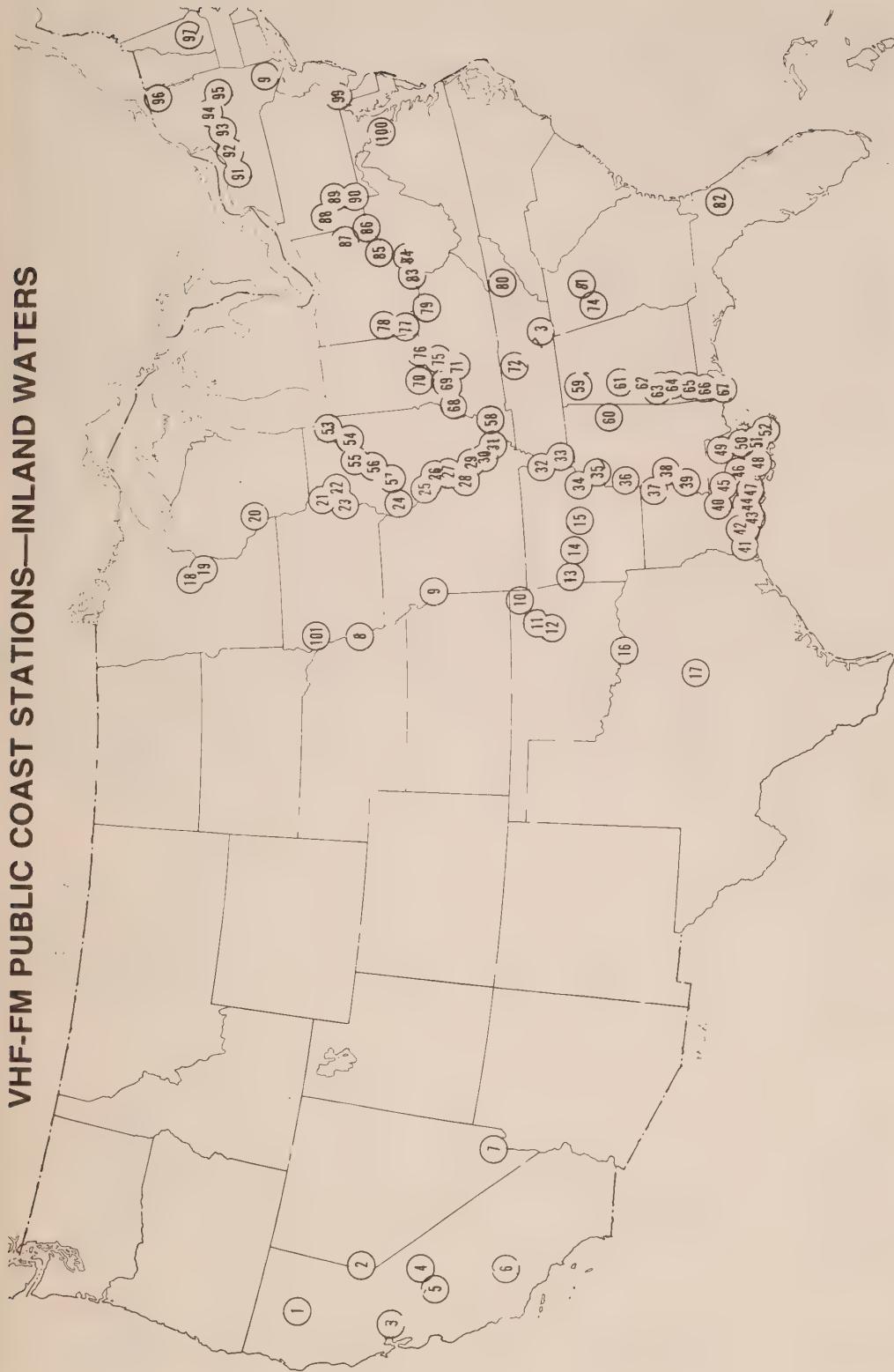
(Call sign only)	(707) 464-3171
Eureka Marine Opr.	(415) 542-4720
Ft. Bragg Marine Opr.	(415) 542-4720
Bodega Bay Marine Opr.	(415) 542-4720
San Francisco Marine Opr.	(415) 542-4720
Santa Cruz Marine Opr.	(408) 354-9000
Monterey Bay Marine Opr.	(408) 424-2903
(Call sign only)	(805) 543-3820
Santa Barbara Marine Opr.	(805) 963-0511
Redondo Marine Opr.	(213) 540 1122
San Pedro Marine Opr.	(213) 744-1622
San Diego Marine Opr.	(213) 744-1622
Dana Point Marine Opr.	(714) 547-1250

HAWAII

KGW 423	Honolulu, Hawaii	(23)	27	RadioCall Inc.
KLU 758	Wailuku, Hawaii	(24)	26	(Call sign only)

(Call sign only)	(808) 521-1424
(Call sign only)	(808) 521-1424

VHF-FM PUBLIC COAST STATIONS—INLAND WATERS



**REGISTRATION
INFORMATION**

**MARINE OPERATOR
IDENTIFICATION**

**MAP
NO.**

**VHF
CHANNEL**

**CALL
SIGN**

SERVICE AREA

INLAND WATERWAYS

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION	REGISTRATION INFORMATION
KUF 732	Redding, Cal.	(1)	28	Radio Electronic Products Corp.	(916) 241-5624	
KQU 378	Crystal Bay, Nev.	(2)	26 & 28	Stockton Mobilphone, Inc.		(916) 546-5957
KGW 464	Vacaville, Cal.	(3)	27 & 28	Pacific Telephone & Telegraph Co.		(415) 542-4720
63 KUF 607	Meadow Lakes, Cal.	(4)	24	Fresno Mobile Radio, Inc.	(Call sign only)	(209) 233-8818
KTD 573	Fresno, Cal.	(5)	26	Fresno Mobile Radio, Inc.	(Call sign only)	(209) 233-8818
KUF 563	Bakersfield, Cal.	(6)	28	Kidd's Communications, Inc.	(Call sign only)	(805) 322-0657
KLU 743	Overton, Nev.	(7)	26	The Telephone Co., Inc.		(702) 293-3353
KZV 793 KTD 514 KFT 310	Sioux City, Iowa Omaha, Neb. Kansas City, Mo.	(101) (8) (9)	28 26 24 & 26	Answer Iowa, Inc. Mobile Communications, Inc. Mobile Communications, Inc.	(Call sign only) (Call sign only) Kansas City Marine Opr.	(712) 252-4687 (402) 341-1529 (816) 221-2720
KTR 853	Ketchum, Okla.	(10)	27	Carlos V. Langston	(Call sign only)	(918) 782-3201

ARKANSAS RIVER

KQU 545	Oiltown, Okla.	(11)	28	Mobilfone Service, Inc.	(Call sign only)
KFL 352	Tulsa, Okla.	(12)	26	Mobilfone Service, Inc.	(Call sign only)
KQU 583	S. Fort Smith, Ark.	(13)	28	Mobilfone Service, Inc.	(Call sign only)
KFL 353	Blue Mountain, Ark.	(14)	26	Mobilfone Service, Inc.	(Call sign only)
KFT 281	Little Rock, Ark.	(15)	26	Mobilfone Communications	(Call sign only)

LAKE DALLAS/LAKE GRAPEVINE/LEWISVILLE DAM/LAKE RAY HUBBARD

KFN 244	Dallas, Tex.		28	Maritime Telecommunications	(Call sign only)
KZI 331	Lake Texoma, Tex.	(16)	26	Maritime Telecommunications	(Call sign only)
KUZ 380	Waco, Tex.	(17)	26	Waco Communications, Inc.	(Call sign only)

63

KFQ 902	St. Paul, Minn.	(18)	26	Marine Radio, Inc.	Minneapolis-St. Paul Marine Opr.
KFQ 902	Hastings, Minn.	(19)	28	Marine Radio, Inc.	Minneapolis-St. Paul Marine Opr.
KWB 425	LaCrosse, Wis.	(20)	26	Marine Radio, Inc.	LaCrosse Marine Opr.
KFT 292	Asbury, Iowa	(21)	26	Marine Radio, Inc.	Dubuque Marine Opr.
KYQ 828	Clinton, Iowa	(22)	28	Answer Iowa, Inc.	(Call sign only)
KFT 290	Davenport, Iowa	(23)	26	Answer Iowa, Inc.	(Call sign only)
KGW 405	Fowler, Ill.	(24)	26	Illinois Bell Telephone Co.	Quincy Marine Opr.
KLU 732	Grafton, Ill.	(25)	27 & 28	Charles P. Soroka	St. Louis Marine Opr.
WGK	Granite City, Ill.	(26)	24, 26, 27	Charles P. Soroka	St. Louis Marine Opr.
WGK	Dupo, Ill.	(27)	26 & 27	Charles P. Soroka	St. Louis Marine Opr.
KGW 380	Crystal City, Mo.	(28)	28	Southwestern Bell Telephone Co.	(Call sign only)
KGW 379	Perryville, Mo.	(29)	26	Southwestern Bell Telephone Co.	Perryville Marine Opr.
KRS 908	Cape Girardeau, Mo.	(30)	24	Withers Communications	(Call sign only)
KGW 320	Cairo, Ill.	(31)	27 & 28	Illinois Bell Telephone Co.	Cairo Marine Opr.

**REGISTRATION
INFORMATION**

**MARINE OPERATOR
IDENTIFICATION**

LICENSEE

**MAP
NO.**

SERVICE AREA

**CALL
SIGN**

KGW 348	Blytheville, Ark	(32)	28	Southwestern Bell Telephone Co.	Blytheville Marine Opr.
WJG	Memphis, Tenn.	(33)	24 & 26	WJG Telephone Co., Inc.	Memphis Marine Opr.
KSK 385	Helena, Ark.	(34)	27 & 28	WJG Telephone Co., Inc.	Helena Radio Marine Opr.
KTD 467	Hillhouse, Miss.	(35)	24 & 86	WJG Telephone Co., Inc.	(Call sign only)
KFT 286	Greenville, Miss.	(36)	26	COM/NAV Marine, Inc.	(Call sign only)
KXS 239	Lake Providence, La.	(37)	25	Radio Telephone of Louisiana	(Call sign only)
KFT 302	Vicksburg, Miss.	(38)	28	COM/NAV Marine, Inc.	(Call sign only)
KFT 287	Natchez, Miss.	(39)	26	COM/NAV Marine, Inc.	Natchez Marine Opr.
KXE 270	Lebeau, La.	(40)	85	South Central Bell Telephone Co.	Melville Marine Opr.
KKM 648	Baton Rouge, La.	(46)	27 & 86	South Central Bell Telephone Co.	Baton Rouge Marine Opr.
KZA 917	Convent, La.	(45)	25	South Central Bell Telephone Co.	Convent Marine Opr.
KKD 736	New Orleans, La.	(50)	24, 26, 27, 87	South Central Bell Telephone Co.	New Orleans Marine Opr.
KJC 784	Venice, La.	(52)	27, 28, 86	South Central Bell Telephone Co.	Venice Marine Opr.
KKD 735	Lake Charles, La.	(41)	28 & 84	South Central Bell Telephone Co.	Lake Charles Marine Opr.
KKM 649	Erat, La.	(43)	25, 86, 87	South Central Bell Telephone Co.	Erat Marine Opr.
KGN	Delcambre, La.	(44)	28 & 85	Delcambre Telephone Company	Delcambre Marine Opr.
KKD 732	Morgan City, La.	(47)	24 & 26	South Central Bell Telephone Co.	Morgan City Marine Opr.
KEW 821	Houma, La.	(48)	28 & 86	South Central Bell Telephone Co.	Houma Marine Opr.
KQU 584	Larose, La.	(51)	84	Lafourche Telephone Co., Inc.	(Call sign only)
KKD 736	New Orleans, La.	(50)	24, 26, 27, 87	South Central Bell Telephone Co.	New Orleans Marine Opr.
KTR 929	Ponchatoula, La.	(49)	85	South Central Bell Telephone Co.	Ponchatoula Marine Opr.
KUF 725	Jennings, La.	(42)	27	Jennings Mobilfone	(Call sign only)

LOUISIANA INTRACOASTAL WATERWAYS

ILLINOIS RIVER

WAY 200	Chicago, Ill.	(53)	27
KQU 582	Joliet, Ill.	(54)	28
KGW 318	Ottawa, Ill.	(55)	26
KFT 288	Peoria, Ill.	(56)	28
KGW 322	Beardstown, Ill.	(57)	26

WAY 200	Chicago, Ill.	(53)	27
KQU 582	Joliet, Ill.	(54)	28
KGW 318	Ottawa, Ill.	(55)	26
KFT 288	Peoria, Ill.	(56)	28
KGW 322	Beardstown, Ill.	(57)	26

TENNESSEE RIVER

KFT 289	Paducah, Ky.	(58)	26
KYQ 861	Tuscumbia, Ala.	(59)	26
KQU 377	Knoxville, Tenn.	(80)	26

(53)	27
(54)	28
(55)	26
(56)	28
(57)	26

BLACK WARRIOR RIVER

WLO	Demopolis, Ala.	(62)	26
WLO	Tuscaloosa, Ala.	(61)	27

(53)	27
(54)	28
(55)	26
(56)	28
(57)	26

TOMBIGBEE RIVER

65	KYH 486	(60)	24
WLO	Columbus, Miss.	(62)	26
WLO	Demopolis, Ala.	(63)	26 & 28
WLO	Myrtlewood, Ala.	(64)	26 & 28
WLO	Grove Hill, Ala.	(65)	26 & 28
WLO	Calvert, Ala.		

(53)	27
(54)	28
(55)	26
(56)	28
(57)	26

ALABAMA RIVER

WLO	Grove Hill, Ala.	(64)	26 & 28
WLO	Calvert, Ala.	(65)	26 & 28

(53)	27
(54)	28
(55)	26
(56)	28
(57)	26

MOBILE RIVER

WLO	Calvert, Ala.	(65)	26 & 28
WLO	Mobile, Ala.	(66)	26 & 28

(53)	27
(54)	28
(55)	26
(56)	28
(57)	26

MOBILE BAY

WLO	Mobile, Ala.	(66)	26 & 28
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(53)	27
(54)	28
(55)	26
(56)	28
(57)	26

CALL SIGN	SERVICE AREA	MAP NO.	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION	REGISTRATION INFORMATION
OHIO RIVER						
KGW 320	Cairo, Ill.	(31)	27 & 28	Illinois Bell Telephone Co.	Cairo Marine Opr.	(312) 727-5574
KFT 289	Paducah, Ky.	(58)	26	COM/NAV Marine, Inc.	Paducah Marine Opr.	(502) 443-6584
KGW 329	Evansville, Ind.	(68)	26	Indiana Bell Telephone Co.	Evansville Marine Opr.	(812) 423-5866
KGW 321	Tell City, Ind.	(69)	28	Indiana Bell Telephone Co.	Tell City Marine Opr.	(812) 423-5866
KUZ 558	Brandenburg, Ky.	(71)	27	Ship to Shore Telephone Co.	(Call sign only)	(502) 422-3030
WFN	Jeffersonville, Ind.	(75)	24 & 26	AMCOM, Inc.	(Call sign only)	(812) 283-0303
WFN	Madison, Ind.	(76)	26	AMCOM, Inc.	(Call sign only)	(812) 281-0460
KJC 732	Cincinnati, Ohio	(77)	28	Cincinnati & Suburban Bell Telephone Co.	Cincinnati Marine Opr.	(513) 397-3431
KYU 675	Maysville, Ky.	(79)	26	Ship to Shore Telephone Co.	(Call sign only)	(606) 564-5970
KGW 317	Ironton, Ohio	(83)	28	Ohio Bell Telephone Company	Ironton Marine Opr.	(614) 460-5123
KEW 837	Pt. Pleasant, W. Va.	(84)	26	COM/NAV Marine, Inc.	Pt. Pleasant Marine Opr.	(304) 675-3750
KUZ 571	Marietta, Ohio	(85)	28	Ship to Shore Telephone Co.	(Call sign only)	(614) 373-8099
KJC 806	Moundsville, W. Va.	(86)	26	Mobile Telephone Service of Wheeling, W. Va.	(Call sign only)	(304) 232-6151
KGW 301	Mingo Junction, Ohio	(87)	28	Ohio Bell Telephone Company	Steubenville Marine Opr.	(614) 283-8219
KLU 836	Freedom, Pa.	(88)	26	WCM Radio Pittsburgh, Inc.	Pittsburgh Radio Marine Opr.	(412) 241-3434
WCM	N. Huntingdon, Pa.	(89)	26	WCM Radio Pittsburgh, Inc.	Pittsburgh Marine Opr.	(412) 864-0800
CUMBERLAND RIVER						
KLG 281	Nashville, Tenn.	(72)	26	Nashville Mobilphone Co., Inc.	(Call sign only)	(615) 255-4135
INLAND WATERS IN THE VICINITY OF CHATTANOOGA, TENN.						
KQU 618	Signal Mountain, Tenn.	(73)	26	Southeast Mobilphone, Inc.	(Call sign only)	(615) 266-4247
ALLATOONA LAKE/LAKE LANIER						
KUZ 552	Cumming, Ga.	(81)	26	Autophone of Gainesville, Inc.	(Call sign only)	(404) 577-3377
KSX 374	Marietta, Ga.	(74)	27	William Garrett Driskell	(Call sign only)	(404) 422-6600

TENNESSEE VALLEY AUTHORITY LAKES

KQU 377 Knoxville, Tenn. (80) 26 Southeast Mobilphone, Inc. (Call sign only) (615) 266-4247

KUF 731 Palatka, Fla. (82) 25 Chawilla, Inc. (Call sign only) (904) 328-5131

KGW 323 Uniontown, Pa. (90) 28 Bell Telephone Co. of Pennsylvania Uniontown Marine Opr. (412) 633-5506

NEW YORK STATE BARGE CANAL

KLU 788 Rochester, N.Y. (91) 25 Tel-Page Corporation
KGW 418 Newark, N.Y. (92) 28 New York Telephone Co.
KGW 416 Syracuse, N.Y. (93) 25 New York Telephone Co.
KGW 415 Utica, N.Y. (94) 28 New York Telephone Co.
KFL 993 Schenectady, N.Y. (95) 26 Tri-City Telephone Co.

LAKE CHAMPLAIN

KGW 417 West Beekmantown, N.Y. (96) 28 New York Telephone Co. Plattsburgh Marine Opr. (212) 395-7125

LAKE WINNIPESAUKEE

KTA 456 Sanbornton, N.H. (97) 25 Comex, Inc. Winnipesaukee Marine Opr. (603) 668-3000

HUDSON RIVER

KLG 325 Fishkill, N.Y. (98) 27 Tri-City Telephone Company (Call sign only) (914) 831-4290

KGB 738 Philadelphia, Pa. (99) 26 Bell Telephone of Pennsylvania Philadelphia Marine Opr. (215) 466-3193

POTOMAC RIVER

KTA 453 Bethesda, Md. (100) 28 Radio Communications, Inc. Washington Marine Opr. (301) 535-1670

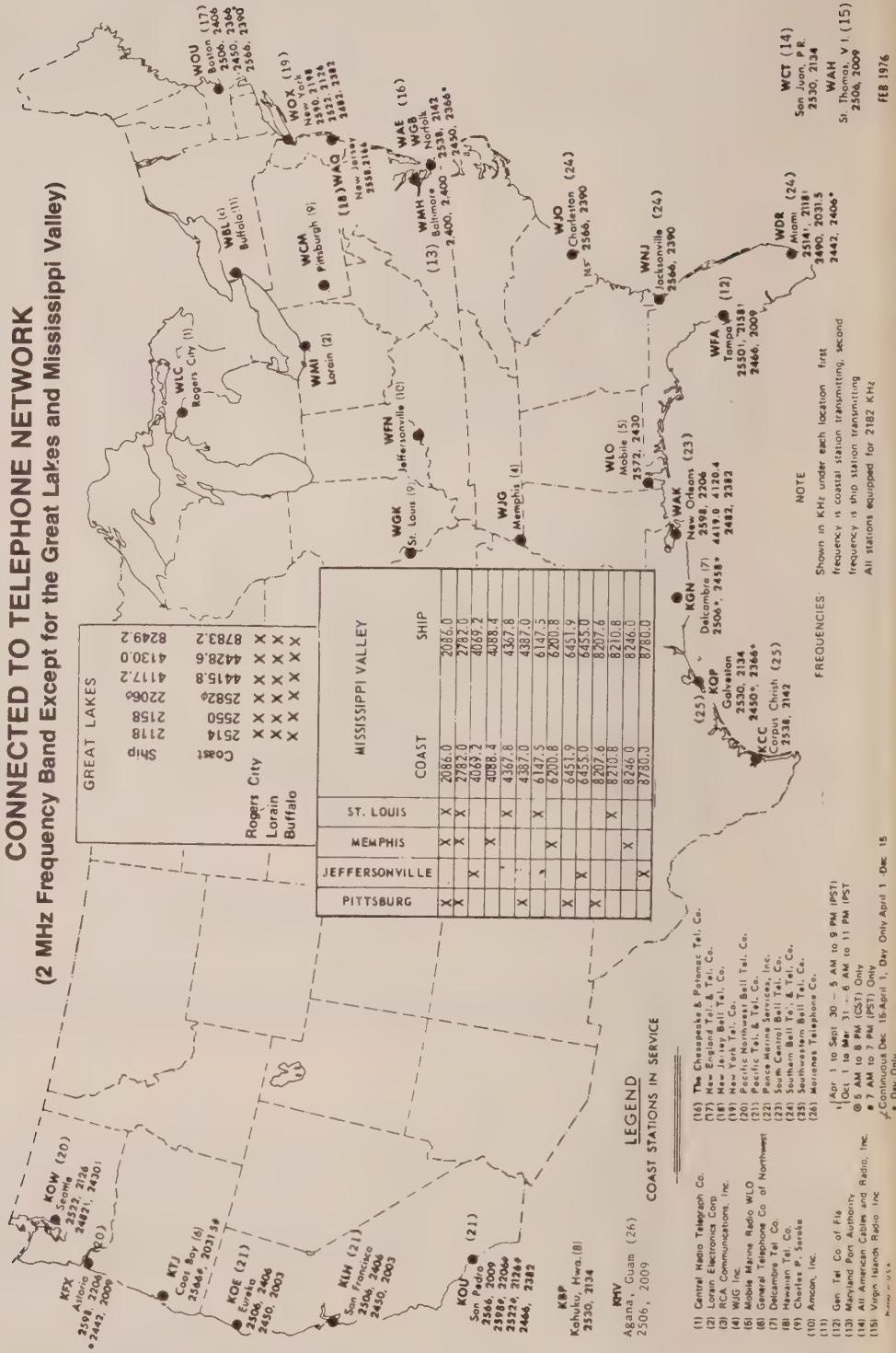
MIAMI RIVER (OHIO)
KTA 454 Hamilton, Ohio (78) 85 Miami Valley Radiotelephone (Call sign only) (513) 863-4000

APPENDIX 5

MEDIUM FREQUENCY PUBLIC COAST STATIONS

CONNECTED TO TELEPHONE NETWORK

(2 MHz Frequency Band Except for the Great Lakes and Mississippi Valley)



Emergency Tear-out Sheet

DISTRESS COMMUNICATIONS FORM

Instructions: Complete this form now (except for items 6 through 9) and post near your radiotelephone.

Speak SLOWLY — CLEARLY — CALMLY

1. Make sure your radiotelephone is on.
2. Select either *VHF Channel 16 (156.8 MHz)* or *2182 kHz*.
3. Press microphone button and say: "MAYDAY — MAYDAY — MAYDAY."
4. Say: "THIS IS _____,"
your boat name, your boat name, your boat name,
_____.
your call letters
5. Say: "MAYDAY: _____."
your boat name
6. TELL WHERE YOU ARE (What navigational aids or landmarks are near?).
7. STATE THE NATURE OF YOUR DISTRESS.
8. GIVE NUMBER OF ADULTS AND CHILDREN ABOARD, AND CONDITIONS OF ANY INJURED.
9. ESTIMATE PRESENT SEAWORTHINESS OF YOUR BOAT.
10. BRIEFLY DESCRIBE YOUR BOAT:

State Registration No.	;	FEET;
Draft	FEET;	Length
Masts;	Type	HULL; TRIM;
Number	Type; Horsepower	Color
POWER; Construction Material		

Anything else you think will help rescuers to find you.

11. Say: "I WILL BE LISTENING ON CHANNEL 16 / 2182."
(Cross out channel no. or frequency that does not apply.)
12. End Message by saying: "THIS IS _____ OVER,"
your boat name and call sign
13. Release microphone button and listen: Someone should answer.
IF THEY DO NOT, REPEAT CALL, BEGINNING AT ITEM 3.
If there is still no answer, switch to another channel and begin again.

VESSEL INFORMATION DATA SHEET

When requesting assistance from the Coast Guard, you may be asked to furnish the following details. This list should, therefore, be filled out as completely as possible and posted alongside your transmitter with the *Distress Communications Form*.

1. Description of Vessel Requiring Assistance.

Sail: _____, Power: Inboard _____, Outboard _____, I/O _____

Type of vessel: (Ketch, sloop, sedan or express cruiser, row boat, etc.)
_____. Manufacturer or class _____

Boat Length _____. Draft _____. Home Port _____

Hull Markings (color trim, etc.) _____

2. Survival Gear Aboard

Personal Flotation Devices _____

Flares _____

Flashlight _____

Raft _____

Dinghy or Tender _____

Anchor _____

Spotlight _____

Auxiliary power _____

Horn _____

3. Electronic Equipment

Radiotelephone(s) VHF MF HF

Channels/Frequencies available

VHF Channel 22A _____

MF—2670 kHz _____

Radar _____

Depth Finder _____

Loran _____

Direction Finder _____

EPIRB _____

4. Vessel Owner/Operator

Name _____ Telephone Number _____

Address _____

Is Owner/Operator an experienced sailor? Yes No

5. Miscellaneous

Be prepared to describe the local weather conditions, depth of water etc.

"Stop-the-press" information

Pages 10 and 14

Channel Number	Ship transmit	Ship receive	Intended use
88	157.425	162.025	In the areas of the Great Lakes and along the St. Lawrence Seaway available for use by ship stations for public correspondence. Same as Channel 24.
88A	157.425	157.425	Except in the Great Lakes and along the St. Lawrence Seaway—COMMERCIAL (INTERSHIP). Same as Channel 7A except limited to intership communications and between commercial fishing vessels and associated aircraft while engaged in commercial fishing.

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New U.S. Coast Guard AMVER Frequencies (Effective 1 January 1978)

YOUR SHIP TRANSMIT CARRIER FREQUENCY	YOUR RECEIVE CARRIER FREQUENCY
4134.3 kHz	4428.7 kHz
6200.0 kHz	6506.4 kHz
8241.5 kHz	8765.4 kHz
12342.4 kHz	13113.2 kHz (on call)
16534.4 kHz	17307.3 kHz (on call)

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REGISTRATION WITH YOUR PUBLIC COAST STATION

The Bell System has developed a new program to improve maritime call-handling. This program, known as the Marine Identification Numbering Plan (or MIN), enables boaters to provide a 10-digit number on each call. This 10-digit number replaces lengthy billing information which the boater is now required to furnish. The Bell System plans to have the majority of their companies on the MIN plan by January 1, 1978. Prior to that date, each Company will be assigning MIN's to currently registered as well as new maritime customers.

